COMMAND REFERENCE GUIDE

RUCKUS ZoneDirector 10.5.1 Command Line Interface Reference Guide

Supporting ZoneDirector 10.5.1

Part Number: 800-73081-001 Rev B
Publication Date: April 2022

Copyright, Trademark and Proprietary Rights Information

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

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.commscope.com/ruckus 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/
- 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.commscope.com/ruckus .

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/. The registration is a two-step process described in this video. You create a CommScope account and then register for, and request access for, CommScope University.

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	`device(config)# interface ethernet 1/1/6`
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.

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*...].
\	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.

About This Guide

Introduction

The *Ruckus ZoneDirector CLI Reference Guide* contains the syntax and commands for configuring and managing ZoneDirector from a command line interface.

This guide is written for service operators and system administrators who are responsible for managing, configuring, and troubleshooting Ruckus Wireless devices. Consequently, it assumes a basic working knowledge of local area networking, wireless networking, and wireless devices.

> **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.

Most user guides and release notes are available in Adobe Acrobat Reader Portable Document Format (PDF) or HTML on the Ruckus Wireless Support Web site at

https://support.ruckuswireless.com/documents.

What's New in this Release

Deprecated Commands in 10.5.1 (April 2022)

- radio 2.4 11n-only Auto
- radio 2.4 11n-only N-only
- no radio 2.4 11n-only-override
- radio 5 11n-only Auto
- radio 5 11n-only N-only
- no radio 5 11n-only-override

The following table lists the changes in CLI commands between this release (10.5.1) and the previous release (10.5).

New	Old	Change
wifi6	None	New in 10.5.1.
no wifi6	None	New in 10.5.1.
configuration_change_log	None	New in 10.5.1.
no configuration_change_log	None	New in 10.5.1.
show configuration_change_log	None	New in 10.5.1.
social-media-login google NUMBER WORD WORD	social-media-login google WORD WORD	Introducing new parameter <NUMBER>

Understanding the ZoneDirector Command Line Interface

Introduction

The Ruckus ZoneDirector Command Line Interface (CLI) is a software tool that allows you to configure and manage ZoneDirector, Ruckus's wireless LAN controller, and all currently managed APs via ZoneDirector CLI commands.

Using the command line interface, you can configure controller system settings, access points, wireless networks and client connection settings, or view current status information for each component of your Ruckus wireless network. Each command performs a specific action for configuring device settings or returning information about the status of a specific device feature.

Accessing the Command Line Interface

This section describes the requirements and the procedure for accessing the ZoneDirector CLI.

NOTE
The ZoneDirector CLI supports a maximum of 8 simultaneous SSH sessions, and a maximum 4 sessions from the same IP address.

Requirements

To access the ZoneDirector CLI, you will need the following:

- A computer that you want to designate as administrative computer
- A network connection to ZoneDirector, or
- An RS-232 serial to Ethernet cable
- A Telnet or SSH (secure shell) client program

Step 1: Connecting the Administrative Computer to ZoneDirector

The ZoneDirector Command Line Interface can be accessed in one of two ways:

- Using an Ethernet Connection on page 34
- Using a Serial Connection on page 34

Using an Ethernet Connection

1. Ensure that ZoneDirector's IP address is reachable from the administrative computer. In factory default state, ZoneDirector's IP address is 192.168.0.2.
2. Continue to Step 2: Start and Configure the SSH Client on page 34.

Using a Serial Connection

To connect to ZoneDirector via serial connection, you need an RS-232 to Ethernet cable.

1. Connect the RJ-45 end of the cable to the port labeled **Console** on ZoneDirector.
2. Connect the RS-232 end of the cable to a COM port on the administrative computer.

Step 2: Start and Configure the SSH Client

Before starting this procedure, make sure that your SSH client is already installed on the administrative computer.

NOTE
The following procedure uses PuTTY, a free and open source Telnet/SSH client, for accessing the ZoneDirector CLI. If you are using a different Telnet/SSH client, the procedure may be slightly different (although the connection settings should be the same). For more information on PuTTY, visit www.putty.org.

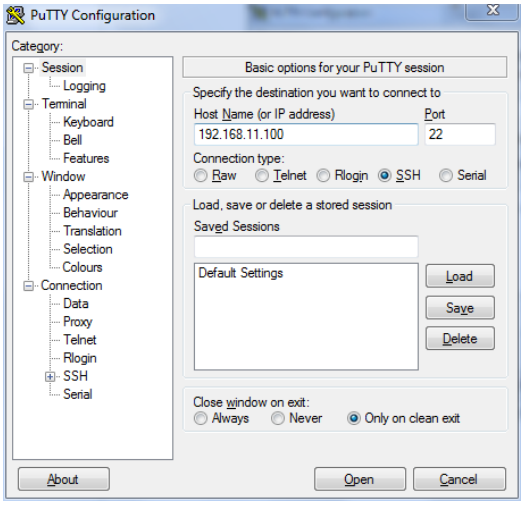
Using SSH

To start and configure the SSH client

1. Start PuTTY. The PuTTY Configuration dialog box appears, showing the **Session** screen.
2. In **Connection type**, select **SSH**.

NOTE
Telnet access is disabled by default for security reasons. SSH is the recommended access method and you will not be allowed to access the ZoneDirector CLI via Telnet unless you have specifically enabled Telnet access.

FIGURE 1 Selecting SSH as the connection type



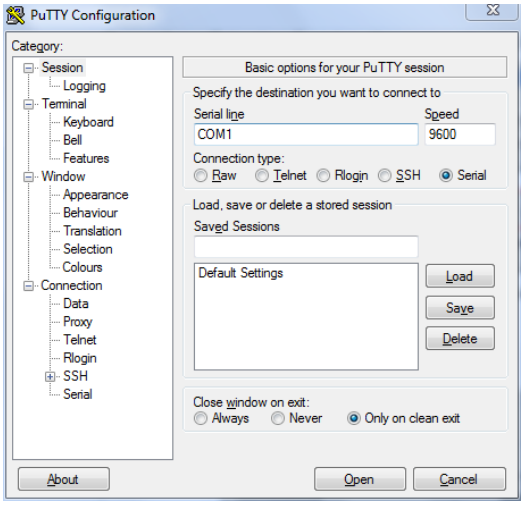
3. Enter the ZoneDirector IP address in the **Host Name (or IP address)** field.
4. Click **Open**. The PuTTY console appears and displays the login prompt.

Using a Serial Connection

To start and configure the SSH client:

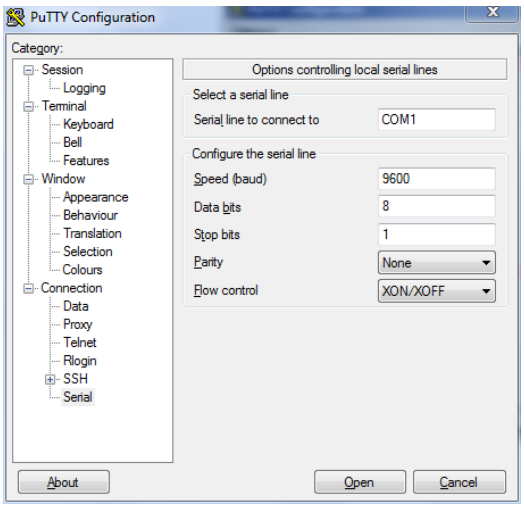
1. Start PuTTY. The PuTTY Configuration dialog box appears, showing the **Session** screen.
2. In **Connection type**, select **Serial** if you are connecting via serial cable.

FIGURE 2 Select Serial as the connection type



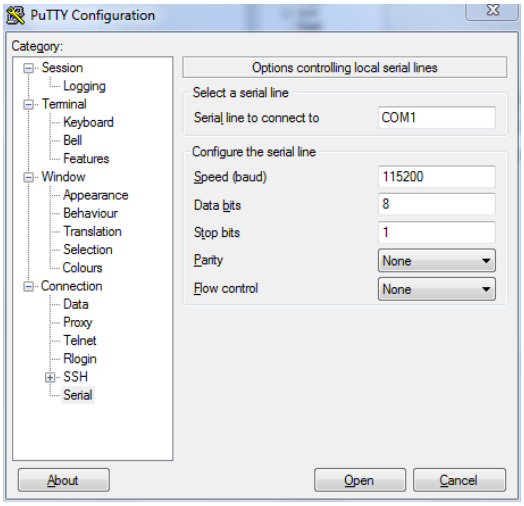
3. Under **Category**, click **Connection** > **Serial**. The serial connection options appear on the right side of the dialog box, displaying PuTTY's default serial connection settings.

FIGURE 3 PuTTY's default serial connection settings



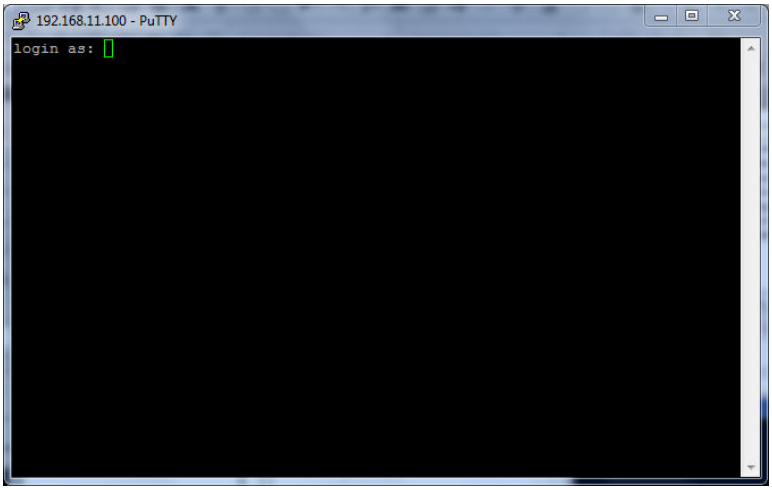
4. Configure the serial connection settings as follows:
   - **Serial line to connect to**: Type the COM port name to which you connected the RS-232 cable.
   - **Bits per second**: 115200
   - **Data bits**: 8
   - **Stop bits**: 1
   - **Parity**: None
   - **Flow control**: None

FIGURE 4 PuTTY's serial connection settings for connecting to ZoneDirector



5. Click **Open**. The PuTTY console appears and displays the login prompt.

FIGURE 5 The PuTTY console displaying the login prompt



You have completed configuring the Telnet/SSH client to connect to ZoneDirector.

Step 3: Log Into the CLI

1. At the **login as** prompt, press **<Enter>** once.
2. At the **Please login** prompt, enter the ZoneDirector login name (default: **admin**), and then press **<Enter>**.
3. At the **Password** prompt, enter the ZoneDirector login password (default: **admin**), and then press **<Enter>**. The Ruckus ZoneDirector CLI welcome message and the `ruckus>` prompt appears.

You are now logged into the ZoneDirector CLI as a user with limited privileges. As a user with limited privileges, you can view a history of commands that were previously executed and ping a device. If you want to run more commands, you can switch to privileged mode by entering enable at the root prompt.

To view a list of commands that are available at the root level, enter **help** or **?**.

> **NOTE**
> You can tell if you are logged into the CLI in limited or privileged mode by looking at the ruckus prompt. If you are in limited mode, the prompt appears as `ruckus>` (with a **greater than** sign). If you are in privileged mode, the prompt appears as `ruckus#` (with a pound sign).
> To enable privileged mode when another user session is enabled, use the <force> option with the enable command to force disconnect of the previous user session. (i.e., **enable force**).

ZoneDirector CLI Setup Wizard

The CLI setup wizard allows you to quickly configure your controller with basic settings using a short series of CLI commands.

ZoneDirector's default IP address is **192.168.0.2**, and the default admin login name and password are: **admin**/**admin**. You can change these settings from their default values, set the system name and country code, and deploy your first WLAN using the setup wizard.

```
login as:

Please login: admin
Password:


Welcome to the Ruckus Wireless ZoneDirector CLI Wizard Configuration Tool


Would you like to start setup wizard? [yes/no]: y

Begin wizard from CLI :

...
...
...

Please review the following settings:
System Name=              ZoneDirector
Administrator Name=       admin
Country Code=             US
Mesh Supported=           Enable
IPv4 Supported=           Enable
IPv4 Mode=               DHCP
IPv6 Supported=           Disable
Wireless LANs ESSID=      Ruckus1
Wireless Authentication=  WPA2_PSK


Are you sure to complete the setup wizard: [yes/no]: y

The ZoneDirector will periodically connect to Ruckus Wireless and Ruckus Wireless will collect
the ZoneDirector serial number, software version and build number. Ruckus Wireless will transmit
```

```
a file back to the ZoneDirector and this will be used to display the current status of the
ZoneDirector Support Contract. Please be advised that this information may be transferred and
stored outside of your country of residence where data protection standards may be different.


Hi, enter YES to accept these terms to proceed: [yes]:

Save the configuration ...

Welcome to the Ruckus Wireless ZoneDirector 1200 Command Line Interface
ruckus>
```

Using the ? Command

To display a brief list of commands that are available within a specific context, use the **?** command.

Example

```
ruckus(config)# admin
ruckus(config-admin)# ?
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  abort                 Exits the config-admin context without saving changes.
  end                   Saves changes, and then exits the config-admin context.
  exit                  Saves changes, and then exits the config-admin context.
  quit                  Exits the config-admin context without saving changes.
  name <WORD>           Sets the admin name.
  no                    Contains commands that can be executed from within the context.
  auth-server <WORD>    Enables administrator authentication with a remote server and sets the
                        authentication server to the specified address.
  show                  Displays administrative settings.
ruckus(config-admin)#
```

Using the Help Command

To display all commands that the Ruckus Wireless CLI supports, use the **help** command.

NOTE
Entering the help command into the CLI prints a long list of commands on the screen. If you only want to view the commands that are available from within a specific context, use the **?** command. See *Using the ? Command* above for more information.

Top-Level Commands

The following table lists the top-level CLI commands available in privileged mode.

Command	Description
exit	Ends the CLI session.
help	Shows available commands.
quit	Ends the CLI session.
history	Shows a list of previously run commands.
disable	Disables privileged commands.
ping	Sends ICMP echo packets to an IP/IPv6 address or domain name.

Command	Description
reboot	Reboots the controller.
shutdown	Shuts down ZoneDirector. To power on ZoneDirector again, press the power button. When the Status LED is lit steadily, you can then reconnect to CLI.
set-factory	Resets the controller to factory default settings.
data-privacy	Executes data privacy commands.
config	Enters the config context to configure options and settings.
logo	Enables/disables suppression of the Ruckus dog logo.
debug	Enters the debug context to perform debug operations.
show	Displays system options and settings.
reset	Resets system options and settings.
session-timeout	Sets the CLI session timeout.
monitor	Monitors system options and settings.

disable

To disable privileged commands, use the following command:

disable

Example

```
ruckus# disable
ruckus>
```

ping

To send ICMP echo packets to an IP address or domain name, use the following command:

ping <IP-ADDR/DOMAIN-NAME>

Example

```
ruckus> ping google.com
PING google.com (172.217.6.142): 56 data bytes
64 bytes from 172.217.6.142: seq=0 ttl=56 time=40.252 ms
64 bytes from 172.217.6.142: seq=1 ttl=56 time=33.652 ms
64 bytes from 172.217.6.142: seq=2 ttl=56 time=32.560 ms

--- google.com ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 32.560/35.488/40.252 ms
ruckus>
```

reboot

To reboot the controller, use the following command:

reboot

Example

```
ruckus# reboot
ruckus#
```

shutdown

To shut down the controller, use the following command:

shutdown

Use this command to shut down ZoneDirector. To power on ZoneDirector again, press the power button. When the Status LED is lit steadily, you can then reconnect to the CLI.

Example

```
ruckus# shutdown
ruckus#
```

set-factory

To reset the controller to factory default settings, use the following command:

set-factory

Example

```
ruckus# set-factory
ruckus#
```

data-privacy

To execute data privacy PII (personally identifiable information) commands, use the following command:

data-privacy

Example

```
ruckus# data-privacy
You have all rights in this mode.
ruckus(data-privacy)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  abort                 Exits current context without saving changes.
  end                   Saves changes, and then exits the current context.
  exit                  Saves changes, and then exits the current context.
  quit                  Exits current context without saving changes.
  show                  Shows settings.
  search <MAC>          Search PII Data by device MAC.
  delete <MAC>          Delete PII Data by device MAC.
  ftpurl <FTP Url>      Enter the FTP URL like
                        ftp://[username:password@]serverip[:port][/subdirectory/]
ruckus(data-privacy)#
```

search

To Search PII Data by device MAC, use the following command:

search <MAC>

Example

```
ruckus(data-privacy)# search 00:01:02:03:04:05
Please input ftp url first
ruckus(data-privacy)#
```

delete

To delete PII data by device MAC, use the following command:

delete <MAC>

Example

```
ruckus(data-privacy)# delete 00:01:02:03:04:05
Please input ftp url first
ruckus(data-privacy)#
```

ftpurl

To configure the FTP URL for data privacy, use the following command:

ftpurl <FTP Url>

Enter the FTP URL in the following format:

ftp://[username:password@]serverip[:port][/subdirectory/]

Example

```
ruckus(data-privacy)# ftpurl ftp://admin:admin@192.168.40.10:443/ftp
FTP server is not reachable or wrong ftp url ftp://admin:admin@192.168.40.10:443/ftp
ruckus(data-privacy)#
```

config

To enter the config context and configure the controller, use the following command:

config

Example

```
ruckus# config
You have all rights in this mode.
ruckus(config)#
```

logo

To enable or disable suppression of the Ruckus dog logo, use the following command:

logo [nodog|default]

Example

```
ruckus# logo nodog
ln: /etc/airespider-images/oem/logo.png: File exists
ruckus# logo default
ln: /etc/airespider-images/oem/logo.png: File exists
ruckus#
```

debug

To enter the debug context to manage system debug options, use the following command:

debug

Example

```
ruckus# debug
You have all rights in this mode.
ruckus(debug)#
```

reset radius-statistics

To reset controller RADIUS statistics, use the following command:

reset radius-statistics [server-all|server-name <WORD>| wlan-all| wlan-name <NAME>

Example

```
ruckus# reset radius-statistics wlan-all
Reset all WLANs RADIUS statistics successfully
ruckus#
```

monitor

See Viewing Current Configuration on page 43.

Viewing Current Configuration

Show Commands Overview

Show commands display the controller's current configuration and status information, such as system status and system configuration settings, along with the status and configurations of the controller's WLAN services, users, roles, AAA servers, access points, connected clients, AP groups and WLAN groups, etc.

Monitor commands allow the administrator to enter monitoring mode to view status and configuration changes as they occur.

Show Location Services Commands

Use the **show location-services** commands to display information about the location servers that have been configured on the controller.

show location-services all

To display a list of all location services servers that have been added to the controller, use the following command:

show location-services all all

Syntax Description

show
Displays information

location-services
Display location server information

all
All location servers

Defaults

None.

Example

```
ruckus# show location-services all
Venue:
  ID:
    1:
      Status                = Disabled
      Venue Name            = MyVenue
      Location Server FQDN  = lbls.ruckuslbs.com
      Location Server Port  = 8883
      Location Server PSK   = password

ruckus#
```

show location-services name

To display information on the specified location server, use the following command:

show location-services name *WORD*

Show AAA Commands

Use the **show aaa** commands to display information about the authentication, authorization and accounting servers (AAA) servers that have been added to the controller.

show aaa all

To display a list of all AAA servers that have been added to the controller, use the following command:

show aaa all all

Syntax Description

show

Display AAA server information

aaa

Display AAA server information

all

All AAA servers

Defaults

None.

Example

```
ruckus# show aaa all
AAA:
ID:
1:

Name= Local Database
Type= Local

2:
Name= Guest Accounts
Type= Guest

3:
Name= RADIUS Accounting
Type= RADIUS Accounting server
Primary RADIUS Accounting:
IP Address= 192.168.11.7
Port= 1813
Secret= secret
Secondary RADIUS Accounting:
Status= Disabled

4:
Name= Ruckus RADIUS
Type= RADIUS server
Auth Method=
Primary RADIUS:
IP Address= 192.168.11.99
Port= 1812
Secret= secret
Secondary RADIUS:
Status= Disabled
```

```
5:
Name= Ruckus AD
Type= Active Directory
IP Address= 192.168.11.17
Port= 389
Windows Domain Name= domain.ruckuswireless.com
Global Catalog= Disabled
Admin DN=domain
Admin Password=password

ruckus#
```

show aaa name

To display information about a specific AAA server that has been added to the controller, use the following command:

show aaa name *WORD*

Syntax Description

show

Display information

aaa name

Display information about the specified AAA server name

WORD

Name of the AAA server

Defaults

None.

Example

```
ruckus# show aaa name "Ruckus RADIUS"
AAA:
ID:
4:
Name= Ruckus RADIUS
Type= RADIUS server
Auth Method=
Primary RADIUS:
IP Address= 192.168.11.99
Port= 1812
Secret= secret
Secondary RADIUS:
Status= Disabled

ruckus#
```

Show DHCP Commands

Use the **show dhcp** commands to display the current settings for any DHCP servers configured for DHCP relay agent use.

show dhcp all

To display a list of all DHCP servers that have been configured on the controller, use the following command:

show dhcp all

Syntax Description

show
Display information

dhcp
Display information about the specified DHCP server name

all
Display a list of all DHCP servers

Defaults

None.

Example

```
ruckus# show dhcp all
DHCP servers for DHCP relay agent:
  ID:
    1:
      Name= DHCP Server 1
      Description=
      IP Address= 192.168.11.1
      IP Address=


ruckus#
```

show dhcp name

To display a list of all DHCP servers that have been configured on the controller, use the following command:

show dhcp name *WORD*

Syntax Description

show
Display information

dhcp
Display information about the specified DHCP server name

name
Display the DHCP server specified

WORD

Name of the DHCP server

Defaults

None.

Example

```
ruckus# show dhcp name "DHCP Server 1"
DHCP servers for DHCP relay agent:
  ID:
    1:
      Name= DHCP Server 1
      Description=
      IP Address= 192.168.11.1
      IP Address=

ruckus#
```

Show Access Point Commands

Use the **show ap** commands to display the current settings of managed devices, including their network address settings, device names, radio settings, and others.

show ap all

To display a summary of all devices that have been approved, use the following command:

show ap all

Syntax Description

show

Display information

ap

Show device information

all

All devices that have been approved by the controller

Defaults

None.

Example

```
ruckus# show ap all
AP:
ID:
1:
MAC Address= 04:4f:aa:0c:b1:00
Model= zf7962
Approved= Yes
Device Name= 7962 - MAP
Description= 7962 MAP (Living Room)
Location= Living Room
GPS=
Group Name= System Default
Radio a/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Radio b/g/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Override global ap-model port configuration= No
Network Setting:
Protocol mode= IPv4 and IPv6
Device IP Settings= Keep AP's Setting
IP Type= DHCP
IP Address= 192.168.11.6
```

```
Netmask= 255.255.255.0
Gateway= 192.168.11.1
Primary DNS Server=
Secondary DNS Server=

Device IPv6 Settings= Keep AP's Setting
IPv6 Type= Auto Configuration
IPv6 Address= fc00::1
IPv6 Prefix Length= 7
IPv6 Gateway=
IPv6 Primary DNS Server=
IPv6 Secondary DNS Server=
Mesh:
Status= Enabled
Mode= Auto
Uplink:
Status= Smart

2:
MAC Address= 00:24:82:3f:14:60
Model= zf7363
Approved= Yes
Device Name= 7363 - RAP
Description= 7363 - RAP (Study)
Location= Study
GPS=
Group Name= System Default
Radio a/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Radio b/g/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Override global ap-model port configuration= No
Network Setting:
Protocol mode= IPv4 and IPv6
Device IP Settings= Keep AP's Setting
IP Type= DHCP
IP Address= 192.168.11.3
Netmask= 255.255.255.0
Gateway= 192.168.11.1
Primary DNS Server= 192.168.11.1
Secondary DNS Server=

Device IPv6 Settings= Keep AP's Setting
IPv6 Type= Auto Configuration
IPv6 Address=
IPv6 Prefix Length= 7
IPv6 Gateway=
IPv6 Primary DNS Server=
IPv6 Secondary DNS Server=
Mesh:
Status= Enabled
Mode= Auto
Uplink:
Status= Smart


ruckus#
```

show ap devname

To display information about a specific device using its device name, use the following command:

show ap devname *WORD*

Syntax Description

show

Display information

ap devname

Show information about the specified device name

WORD

The name of the device

Defaults

None.

Example

```
ruckus# show ap devname "7962 - MAP"
AP:
ID:
1:
MAC Address= 04:4f:aa:0c:b1:00
Model= zf7962
Approved= Yes
Device Name= 7962 - MAP
Description= 7962 MAP (Living Room)
Location= Living Room
GPS=
Group Name= System Default
Radio a/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Radio b/g/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Override global ap-model port configuration= No
Network Setting:
Protocol mode= IPv4 and IPv6
Device IP Settings= Keep AP's Setting
IP Type= DHCP
IP Address= 192.168.11.6
Netmask= 255.255.255.0
Gateway= 192.168.11.1
Primary DNS Server=
Secondary DNS Server=

Device IPv6 Settings= Keep AP's Setting
IPv6 Type= Auto Configuration
IPv6 Address= fc00::1
IPv6 Prefix Length= 7
```

```
IPv6 Gateway=
IPv6 Primary DNS Server=
IPv6 Secondary DNS Server=
Mesh:
Status= Enabled
Mode= Auto
Uplink:
Status= Smart

ruckus#
```

show ap mac

To search for the device that matches the specified MAC address, use the following command:

show ap mac *MAC*

Syntax Description

show

Display information

ap mac

Display information about the device with the specified MAC address

MAC

The MAC address of the device

Defaults

None.

Example

```
ruckus# show ap mac 04:4f:aa:0c:b1:00
AP:
ID:
1:
MAC Address= 04:4f:aa:0c:b1:00
Model= zf7962
Approved= Yes
Device Name= 7962 - MAP
Description= 7962 MAP (Living Room)
Location= Living Room
GPS=
Group Name= System Default
Radio a/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Radio b/g/n:
Channelization= Auto
Channel= Auto
WLAN Services enabled= Yes
5.8GHz Channels = Disabled
Tx. Power= Auto
WLAN Group Name= Default
Override global ap-model port configuration= No
Network Setting:
```

```
Protocol mode= IPv4 and IPv6
Device IP Settings= Keep AP's Setting
IP Type= DHCP
IP Address= 192.168.11.6
Netmask= 255.255.255.0
Gateway= 192.168.11.1
Primary DNS Server=
Secondary DNS Server=

Device IPv6 Settings= Keep AP's Setting
IPv6 Type= Auto Configuration
IPv6 Address= fc00::1
IPv6 Prefix Length= 7
IPv6 Gateway=
IPv6 Primary DNS Server=
IPv6 Secondary DNS Server=
Mesh:
Status= Enabled
Mode= Auto
Uplink:
Status= Smart

ruckus#
```

Show AP Group Commands

Use the show **ap-group** commands to display Access Point Group settings.

show ap-group all

To display all AP groups and their settings (including the default AP group), use the following command:

show ap-group all

Syntax Description

show

Display information

ap-group

Display access point group information

all

All AP groups

Defaults

None.

Example

```
ruckus# show ap-group all
APGROUP:
 ID:
 1:
 Name= System Default
 Description= System default group for Access Points
 Radio 11bgn:
 Channelization= Auto
 Channel= Auto
 Enable auto channel selection which select from 1,6,11= Yes
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Radio 11an:
 Channelization= Auto
 Channel= Auto
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Members:
 MAC= 04:4f:aa:0c:b1:00
 MAC= 00:24:82:3f:14:60
 MAC= 74:91:1a:2b:ff:a0

APGROUP:
 ID:
 2:
 Name= ap group 2
 Description=
 Radio 11bgn:
 Channelization= Auto
 Channel= Auto
 Enable auto channel selection which select from 1,6,11= Yes
 Tx. Power= Auto
```

```
 11N only Mode= Auto
 WLAN Group= Default
 Radio 11an:
 Channelization= Auto
 Channel= Auto
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Members:

APGROUP:
 ID:
 3:
 Name= ap group 1
 Description=
 Radio 11bgn:
 Channelization= Auto
 Channel= Auto
 Enable auto channel selection which select from 1,6,11= Yes
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Radio 11an:
 Channelization= Auto
 Channel= Auto
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Members:

ruckus#
```

show ap-group name

To display details about a specific AP group, use the following command:

show ap-group name *WORD*

Syntax Description

show

Display information

ap-group name

Display information about the AP group with the specified name

WORD

The name of the AP group

Defaults

None.

Example

```
ruckus# show ap-group name "System Default"
APGROUP:
 ID:
 1:
 Name= System Default
 Description= System default group for Access Points
 Radio 11bgn:
```

```
 Channelization= Auto
 Channel= Auto
 Enable auto channel selection which select from 1,6,11= Yes
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Radio 11an:
 Channelization= Auto
 Channel= Auto
 Tx. Power= Auto
 11N only Mode= Auto
 WLAN Group= Default
 Members:
 MAC= 04:4f:aa:0c:b1:00
 MAC= 00:24:82:3f:14:60
 MAC= 74:91:1a:2b:ff:a0

ruckus#
```

Show AP Policy Commands

Use the **show ap-policy** command to display global access point policies that have been configured on the controller.

show ap-policy

show ap-policy

Example

```
ruckus# show ap-policy
Automatically approve all join requests from APs= Enabled
Limited ZD Discovery:
Status= Disabled
Management VLAN:
Status= Keep AP's setting
Balances the number of clients across adjacent APs= Disabled
Max. clients for 11BG radio= 100
Max. clients for 11N radio= 100
LWAPP message MTU= 1450
ruckus#
```

Show System Configuration Commands

Use the **show config** commands to display the controller's system configuration settings.

show config

To display the current system configuration settings, including network addressing, management VLAN, country code, logging, AAA servers, WLAN services, WLAN groups, AP list, SNMP, and ACLs, etc., use the following command:

show config

Syntax Description

show

Display information

config

Display system configuration settings

Defaults

None.

Example

```
ruckus# show config
Protocol Mode= IPv4-Only
Device IP Address:
  Mode= Manual
  IP Address= 192.168.40.100
  Netmask= 255.255.255.0
  Gateway Address= 192.168.40.1
  Primary DNS= 192.168.40.1
  Secondary DNS=

Management VLAN:
  VLAN ID= 1

Country Code:
  Code= United States

Identity:
  Name= Ruckus

NTP:
  Status= Enabled
  Address= ntp.ruckuswireless.com

Log:
  Status= Disabled
  Address= 192.168.3.10
  Facility= local0
  Priority= emerg
  AP Facility= local0
  AP Priority= emerg

Tunnel MTU:
  Tunnel MTU= 1500

Bonjour Service:
  Status= Disabled
```

```
Telnet Server:
  Status= Disabled

FTP Server:
  Status= Enabled
  Anonynous Status= Enabled

FlexMaster:
  Status= Disabled
  Address=
  Interval= 15

AAA:
  ID:
    1:
      Name= Local Database
      Type= Local

    2:
      Name= Guest Accounts
      Type= Guest
...
...
ruckus#
```

Show Performance Commands

Use the **show performance** commands to display performance details on an AP radio or client station.

show performance

Use the following command to display performance details:

show performance

show performance ap-radio2-4

Use the following command to display performance details for the AP's 2.4 GHz radio.

show performance ap-radio2-4

Syntax Description

show
Display information

performance
Display performance information

ap-radio-2-4
Display AP 2.4 GHz radio performance

mac *MAC*
The MAC address of the AP

Defaults

None.

Example

```
ruckus# show performance ap-radio2-4 mac c4:10:8a:1f:d1:f0
AP performance:
    1:
      Radio b/g/n:
      MAC Address= c4:10:8a:1f:d1:f0
      Estimated Capacity= 9930
      Downlink= 67
      Uplink= 0
      RF pollution= 11
      Associated clients= 1
      Other APs= 0

ruckus#
```

show performance ap-radio5

Use the following command to display performance details for the AP's 5 GHz radio:

show performance ap-radio5 mac *MAC*

Syntax Description

show performance
Display performance information

ap-radio-5
Display AP 5 GHz radio performance

mac *MAC*
The MAC address of the AP

Defaults

None.

Example

```
ruckus# show performance ap-radio5 mac c4:10:8a:1f:d1:f0
AP performance:
    1:
      Radio a/n:
      MAC Address= c4:10:8a:1f:d1:f0
      Estimated Capacity= 20891
      Downlink= 77
      Uplink= 2
      RF pollution= 3
      Associated clients= 1
      Other APs= 0

ruckus#
```

show performance station

Use the following command to display performance details for a connected client/station:

show performance station mac *MAC*

Syntax Description

show performance
Display performance information

station
Display station performance

mac *MAC*
The MAC address of the station

Defaults

None.

Example

```
ruckus# show performance station mac 00:22:fb:ad:1b:2e
Station performance:
      MAC Address= 00:22:fb:ad:1b:2e
```

```
      Estimated Capacity= 61401
      Downlink= 76
      Uplink= 18
ruckus#
```

Show System Information Commands

Use the **show sysinfo** commands to display the controller's system information.

show sysinfo

To display an overview of the system status, including system, devices, usage summary, user activities, system activities, access points, and support information, use the following command:

show sysinfo

Syntax Description

show

Display information

sysinfo

Display an overview of various system statuses

Defaults

None.

Example

```
ruckus# show sysinfo
System Overview:
  Name= ZoneDirector
  IP Address= 192.168.0.6
  IPv6 Address= fc00::2
  MAC Address= f8:e7:1e:3a:4c:20
  Uptime= 5d 19h 12m
  Model= ZD1200
  Licensed APs= 5
  Serial Number= 951608000220
  Version= 10.4.0.0 build 7

Devices Overview:
  Number of APs= 4
  Number of Client Devices= 6
  Number of Rogue Devices= 28

Usage Summary:
  Usage of 1 hr:
    Max. Concurrent Users= 6
    Bytes Transmitted= 148.58M
    Number of Rogue Devices= 28
  Usage of 24 hr:
    Max. Concurrent Users= 6
    Bytes Transmitted= 137.91G
    Number of Rogue Devices= 54

Memory Utilization:
  Used Bytes= 91528(kB)
  Used Percentage= 5%
  Free Bytes= 1857716(kB)
  Free Percentage= 95%

ruckus#
```

Show Ethernet Info Commands

Use the **show ethinfo** command to display current system Ethernet status.

show ethinfo

show ethinfo

Syntax Description

show

Display information

ethinfo

Display the current system Ethernet status

Defaults

None.

Example

```
ruckus# show ethinfo
System Ethernet Overview:
  Port  0:
    Interface= eth0
    MAC Address= f8:e7:1e:3a:4c:20
    Physical Link= up
    Speed= 1000Mbps
  Port  1:
    Interface= eth1
    MAC Address= f8:e7:1e:3a:4c:21
    Physical Link= down
    Speed= 100Mbps

ruckus#
```

Show Technical Support Commands

Use the following commands to display information that Ruckus Wireless may need when providing technical support.

show techsupport

To display system information required by Technical Support, use the following command:

show techsupport

Syntax Description

show

Display information

techsupport

Display information about the controller that may be required by Ruckus Wireless Technical Support

Defaults

None.

Example

```
ruckus# show
techsupport
                                                    System Overview:

  Name= ZoneDirector
  IP Address= 192.168.0.4
  IPv6 Address= fc00::2
  MAC Address= f8:e7:1f:3a:4c:20
  Uptime= 5d 19h 16m
  Model= ZD1200
  Licensed APs= 5
  Serial Number= 951608003220
  Version= 10.4.0.0 build 7

Devices Overview:
  Number of APs= 4
  Number of Client Devices= 6
  Number of Rogue Devices= 27

Usage Summary:
  Usage of 1 hr:
    Max. Concurrent Users= 6
    Bytes Transmitted= 189.42M
    Number of Rogue Devices= 27
  Usage of 24 hr:
    Max. Concurrent Users= 6
    Bytes Transmitted= 137.95G
    Number of Rogue Devices= 54

Memory Utilization:
  Used Bytes= 91616(kB)
  Used Percentage= 5%
  Free Bytes= 1857628(kB)
  Free Percentage= 95%

...
...
```

```
ruckus#
```

Show Management ACL Commands

Use the **mgmt-acl** and **mgmt-acl-ipv6** commands to display information about the management access control lists configured on the controller.

show mgmt-acl all

To display all management ACLs that have been configured on the controller, use the following command:

show mgmt-acl all

show mgmt-acl name

To display information about a specific management ACL, use the following command:

show mgmt-acl name *NAME*

show mgmt-acl-ipv6 all

To display all management ACLs that have been configured on the controller, use the following command:

show mgmt-acl-ipv6 all

show mgmt-acl-ipv6 name

To display information about a specific management ACL, use the following command:

show mgmt-acl-ipv6 name *NAME*

Syntax Description

show
: Display information

mgmt-acl
: Display management ACL settings

mgmt-acl-ipv6
: Display IPv6 management ACL settings

all
: All configured management ACLs

name
: Display information about a specific management ACL

NAME
: The name of the management ACL

Defaults

None.

Example

```
ruckus# show mgmt-acl all
Management ACL:
Name= New Name
  Restriction Type= range
  IP range= 192.168.11.1-192.168.11.253

Name= Remote 1
  Restriction Type= single
  IP address= 172.17.17.150

Name= Remote admin 2
  Restriction Type= single
  IP address= 172.17.16.12


ruckus#
```

Show Static Route Commands

Use the **static-route** commands to display information about static routes configured on the controller.

show static-route all

To display all static route information, use the following command:

show static-route all

show static-route name

show static-route name *NAME*

show static-route-ipv6 all

show static-route-ipv6 all

show static-route-ipv6 name

show static-route-ipv6 name *NAME*

Syntax Description

show
: Display information

static-route
: Display static route settings

static-route-ipv6
: Display IPv6 static route settings

all
: All configured static routes

name
: Display information about a specific configured static route

NAME
: The name of the static route entry

Defaults

None.

Example

```
ruckus# show static-route all
Static Route:
ID= 1
Name= Static Route 1
```

```
IP subnet= 192.168.11.1/24
IP gateway= 192.168.11.1


ruckus#
```

Show WLAN Commands

Use the following commands to display information about available WLANs on the controller.

show wlan

To display all available WLAN services (SSIDs), use the following command:

show wlan [**all** | **name** <*WORD*>]

Syntax Description

show

Display information

wlan

Display WLAN services (SSIDs) settings

all

Display all WLAN services

name <*WORD*>

Display the named WLAN only

Defaults

None.

Example

```
ruckus# show wlan all
WLAN Service:
  ID:
    1:
      NAME = Ruckus1
      Tx. Rate of Management Frame(2.4GHz) = 2.0Mbps
      Tx. Rate of Management Frame(5GHz)   = 6.0Mbps
      Beacon Interval = 100ms
      SSID = Ruckus1
      Description = Ruckus1
      Type = Standard Usage
      Authentication = open
      Encryption = wpa2
      Algorithm = aes
      Passphrase = secretpassphrasegoeshere
      FT Roaming = Disabled
      802.11k Neighbor report = Disabled
      Web Authentication = Disabled
      Authentication Server = Disabled
      Accounting Server = Disabled
      Called-Station-Id type = wlan-bssid
      Tunnel Mode = Disabled
      DHCP relay = Disabled
      Max. Clients = 100
      Isolation per AP = Disabled
      Isolation across AP = Disabled
      Zero-IT Activation = Enabled
      Load Balancing = Disabled
      Band Balancing = Disabled
      Dynamic PSK = Enabled
```

```
        Dynamic PSK Passphrase Length =
        Dynamic PSK Expire Time = unlimited
        Dynamic PSK Validity Period =
        Limit Dynamic PSK = Disabled
        Auto-Proxy configuration:
          Status = Disabled
        Inactivity Timeout:
            Status = Disabled
        VLAN-ID = 1
        Dynamic VLAN = Disabled
        Closed System = Disabled
        Https Redirection = Disabled
        OFDM-Only State = Disabled
        Multicast Filter State = Disabled
        802.11d State = Disabled
        Force DHCP State = Disabled
        Force DHCP Timeout = 0
        DHCP Option82:
            Status = Disabled
            Option82 sub-Option1 = Disabled
            Option82 sub-Option2 = Disabled
            Option82 sub-Option150 = Disabled
            Option82 sub-Option151 = Disabled
        Ignore unauthorized client statistic = Disabled
        STA Info Extraction State = Enabled
        BSS Minrate = Disabled
        DTIM period = 1
        Directed MC/BC Threshold = 5
        Call Admission Control State = Disabled
        PMK Cache Timeout= 720 minutes
        PMK Cache for Reconnect= Enabled
        NAS-ID Type= wlan-bssid
        Roaming Acct-Interim-Update= Disabled
        PAP Message Authenticator = Enabled
        Send EAP-Failure = Disabled
        L2/MAC = No ACLS
        L3/L4/IP Address = No ACLS
        L3/L4/IPv6 Address = No ACLS
        Precedence = No ACLS
        Proxy ARP = Disabled
        Device Policy = No ACLS
        Vlan Pool = No Pools
        Role based Access Control Policy = Disabled
        SmartRoam = Disabled  Roam-factor = 1
        White List = No ACLS
        Application Recognition & Control = Disabled
        Apply ARC Policy = NO POLICY
        Wlan Bind = all
        Client Flow Data Logging = Disabled
        Client Connection Data = Disabled

ruckus#
```

Show WLAN Group Commands

Use the following commands to display information about the WLAN groups that exist on the controller.

show wlan-group all

To display a list of existing WLAN groups, use the following command:

show wlan-group all

Syntax Description

show

Display information

wlan-group

Display information about the specified WLAN group

all

Show all WLAN groups

Defaults

None.

Example

```
ruckus# show wlan-group all
WLAN Group:
ID:
1:
Name= Default
Description= Default WLANs for Access Points
WLAN Service:
WLAN1:
NAME= Ruckus1
VLAN=
WLAN2:
NAME= Ruckus2
VLAN=

2:
Name= Guest WLAN Group
Description= 1st floor APs only
WLAN Service:
WLAN1:
NAME= Ruckus-Guest
VLAN=


ruckus#
```

show wlan-group name

To display information about the specified WLAN group name, use the following command:

show wlan-group name *WORD*

Syntax Description

show

Display information

wlan-group name

Display information about the specified WLAN group name

WORD

The name of the WLAN group

Defaults

None.

Example

```
ruckus# show wlan-group name Default
WLAN Group:
ID:
1:
Name= Default
Description= Default WLANs for Access Points
WLAN Service:
WLAN1:
NAME= Ruckus1
VLAN=
WLAN2:
NAME= Ruckus2
VLAN=

ruckus#
```

Show L2 Access Control List Commands

Use the **show l2acl** commands to display Layer 2 access control list rules that have been added to the controller.

show l2acl all

To display all Layer 2 access control list (ACL) rules that have been added to the controller and their settings, use the following command:

show l2acl all

Syntax Description

show
: Display information

l2acl
: Display L2 ACL information

all
: All L2 ACL

Defaults

None.

Example

```
ruckus# show l2acl all
L2/MAC ACL:
ID:
1:
Name= System
Description= System
Restriction: Deny only the stations listed below
Stations:
2:
Name= blocked-sta-list
Description=
Restriction: Deny only the stations listed below
Stations:
```

show l2acl name

To display the settings of a specific L2 ACL rule that has been added to the controller, use the following command:

show l2acl name *WORD*

Syntax Description

show
: Display information

l2acl
: Display L2 ACL information

name

Display information about the specified L2 ACL rule name

WORD

Name of the L2 ACL rule

Defaults

None.

Example

```
ruckus# show l2acl name 1
L2/MAC ACL:
ID:
2:
Name= 1
Description=
Restriction: Deny only the stations listed below
Stations:
MAC Address= 00:33:22:45:34:88
```

Show Whitelist Commands

Use the **show whitelist** commands to display client isolation whitelists that have been added to the controller.

show whitelist all

To display all whitelists that have been added to the controller and their settings, use the following command:

show whitelist all

Syntax Description

show
Display information

whitelist
Display whitelist information

all
All whitelists

Defaults

None.

Example

```
ruckus# show whitelist all
White Lists:
  ID:
    1:
      Name= printer whitelist
      Description= printer
      Rules:
        1:
          Description= printer
          MAC = 12:34:56:78:90:00
          IP Address = 192.168.4.10


ruckus#
```

show whitelist name

To display a specified whitelist that has been added to the controller by name, use the following command:

show whitelist name *WORD*

Syntax Description

show
Display information

whitelist
Display whitelist information

name *WORD*

Specify the name of the whitelist

Defaults

None.

Example

```
ruckus# show whitelist name "printer whitelist"
White Lists:
  ID:
    1:
      Name= printer whitelist
      Description= printer
      Rules:
        1:
          Description= printer
          MAC = 12:34:56:78:90:00
          IP Address = 192.168.4.10

ruckus#
```

Show L3 Access Control List Commands

Use the **show l3acl** commands to display Layer 3 access control list rules that have been added to the controller.

show l3acl all

To display all Layer 3 access control list (ACL) rules that have been added to the controller and their settings, use the following command:

show l3acl all

show l3acl-ipv6 all

To display all IPv6 Layer 3 access control list (ACL) rules that have been added to the controller and their settings, use the following command:

show l3acl-ipv6 all

Syntax Description

show
: Display information

l3acl
: Display L3 ACL information

l3acl-ipv6
: Display IPv6 L3 ACL information

all
: All L3 ACL

Defaults

None.

Example

```
ruckus# show l3acl all
L3/L4/IP ACL:
ID:
4:
Name= test2
Description= test2
Default Action if no rule is matched= Deny all by default
Rules:
Order= 1
Description=
Type= Allow
Destination Address= Any
Destination Port= 53
Protocol= Any
Order= 2
Description=
Type= Allow
Destination Address= Any
Destination Port= 67
Protocol= Any
```

```
Order= 3
Description=
Type= Allow
Destination Address= 8.8.8.8/24
Destination Port= 25
Protocol= 6
```

show l3acl name

To display the settings of a specific L3 ACL rule that has been added to the controller, use the following command:

show l3acl name *WORD*

show l3acl-ipv6 name

To display the settings of a specific IPv6 L3 ACL rule that has been added to the controller, use the following command:

show l3acl-ipv6 name *WORD*

Syntax Description

show
: Display information

l3acl
: Display L3 ACL information

l3acl-ipv6
: Display IPv6 L3 ACL information

name
: Display information about the specified L3 ACL rule

WORD
: Name of the L3 ACL rule

Defaults

None.

Example

```
ruckus# show l3acl name test2
L3/L4/IP ACL:
ID:
4:
Name= test2
Description= test2
Default Action if no rule is matched= Allow all by default
Rules:
Order= 1
Description=
Type= Allow
Destination Address= Any
Destination Port= 53
Protocol= Any
Order= 2
Description=
Type= Allow
```

```
Destination Address= Any
Destination Port= 67
Protocol= Any
Order= 3
Description=
Type= Allow
Destination Address= 8.8.8.8/24
Destination Port= 25
Protocol= 6
```

Show Hotspot Commands

Use the **show hotspot** commands to display the controller's hotspot configuration settings.

show hotspot all

To display a list of all hotspot services that have been created on the controller, use the following command:

show hotspot all

Syntax Description

show
: Display information

hotspot
: Display hotspot information

all
: All available hotspots

Defaults

None.

Example

```
ruckus# show hotspot all
Hotspot:
  ID:
    1:
      Name= Hotspot 1
      WISPr Smart Client Support:
        Status= None
      Login Page Url= http://192.168.1.12/login.htm
      Start Page= redirect to the URL that the user intends to visit
      Session Timeout:
        Status= Disabled
      Grace Period:
        Status= Disabled
      Intrusion Prevention= Enabled
      Authentication Server= Local Database
      Accounting Server:
        Status= Disabled
      Isolation per AP = Disabled
      Isolation across AP = Disabled
      White List = No ACLS
      Location ID=
      Location Name=
      Walled Garden 1= 1.1.1.1
      IPv4 Rules:

      IPv6 Rules:


ruckus#
```

show hotspot name

To display information about the specific hotspot service, use the following command:

show hotspot name *WORD*

If the hotspot name includes a space, you must put the name in quotation marks (for example, “hotspot name”.

Syntax Description

show

Display information

hotspot name

Display hotspot information

WORD

The name of the hotspot

Defaults

None.

Example

```
ruckus# show hotspot name “Hotspot 1”
Hotspot:
  ID:
    1:
      Name= Hotspot 1
      WISPr Smart Client Support:
        Status= None
      Login Page Url= http://192.168.1.12/login.htm
      Start Page= redirect to the URL that the user intends to visit
      Session Timeout:
        Status= Disabled
      Grace Period:
        Status= Disabled
      Intrusion Prevention= Enabled
      Authentication Server= Local Database
      Accounting Server:
        Status= Disabled
      Isolation per AP = Disabled
      Isolation across AP = Disabled
      White List = No ACLS
      Location ID=
      Location Name=
      Walled Garden 1= 1.1.1.1
      IPv4 Rules:

      IPv6 Rules:


ruckus#
```

show hs20op all

To display information about all Hotspot 2.0 Operators, use the following command:

show hs20op all

Syntax Description

show

Display information

hs20op

Display Hotspot 2.0 Operator

all

Display all HS2.0 operators

Defaults

None.

Example

```
ruckus# show hs20op all
Hotspot 2.0 Operator:
  ID:
    1:
      NAME= operator1
      Description=
      Venue Group= Unspecified
      Venue Type= Unspecified
      ASRA Option:
        Status= Disabled
      Internet Option= Disabled
      Access Network Type= Private
      IPv4 Address Type= Not Available
      IPv6 Address Type= Not Available
      HESSID=
      Friendly Name List:
      Service Provider Profiles:
        ID= 1
          Name= provider1
      WAN Metrics:
        Enable Symmetric Link= Disabled
        WAN at Capability= Disabled
        Link Status= Link Up
        WAN Downlink Load= 0
        WAN Downlink Speed= 0
        WAN Uplink Load= 0
        WAN Uplink Speed= 0
        Load Measurement Duration= 0
      Connection Capability:
        Description= ICMP
          IP Protocol= 1
          Port Number= 0
            Status= Closed
        Description= FTP
          IP Protocol= 6
          Port Number= 20
            Status= Closed
        Description= SSH
          IP Protocol= 6
          Port Number= 22
            Status= Closed
        Description= HTTP
          IP Protocol= 6
          Port Number= 80
            Status= Closed
        Description= Used by TLS VPNs
          IP Protocol= 6
          Port Number= 443
            Status= Closed
```

```
        Description= Used by PPTP VPNs
          IP Protocol= 6
          Port Number= 1723
            Status= Closed
        Description= VoIP
          IP Protocol= 6
          Port Number= 5060
            Status= Closed
        Description= Used by IKEv2 (IPSec VPN)
          IP Protocol= 17
          Port Number= 500
            Status= Closed
        Description= VoIP
          IP Protocol= 17
          Port Number= 5060
            Status= Closed
        Description= May be used by IKEv2 (IPSec VPN)
          IP Protocol= 17
          Port Number= 4500
            Status= Closed
        Description= ESP, used by IPSec VPNs
          IP Protocol= 50
          Port Number= 0
            Status= Closed
        Additional Connection Capability:
      Advanced GAS Settings:
        GAS query response buffering time= 1000
        GAS DOS detection= Disabled
        GAS DOS maximum request number= 200
      Hotspot 2.0 Capability:
        Operatiing Class Indication= Unspecified


ruckus#
```

show hs20op name

To display information about the named Hotspot 2.0 Operator, use the following command:

show hs20op name *WORD*

Syntax Description

show

Display information

hs20op name

Display specific Hotspot 2.0 Operator

WORD

The name of the HS2.0 operator

Defaults

None.

Example

```
ruckus# show hs20op name operator1
Hotspot 2.0 Operator:
  ID:
    1:
```

```
NAME= operator1
Description=
Venue Group= Unspecified
Venue Type= Unspecified
ASRA Option:
  Status= Disabled
Internet Option= Disabled
Access Network Type= Private
IPv4 Address Type= Not Available
IPv6 Address Type= Not Available
HESSID=
Friendly Name List:
Service Provider Profiles:
  ID= 1
    Name= provider1
WAN Metrics:
  Enable Symmetric Link= Disabled
  WAN at Capability= Disabled
  Link Status= Link Up
  WAN Downlink Load= 0
  WAN Downlink Speed= 0
  WAN Uplink Load= 0
  WAN Uplink Speed= 0
  Load Measurement Duration= 0
Connection Capability:
  Description= ICMP
    IP Protocol= 1
    Port Number= 0
      Status= Closed
  Description= FTP
    IP Protocol= 6
    Port Number= 20
      Status= Closed
  Description= SSH
    IP Protocol= 6
    Port Number= 22
      Status= Closed
  Description= HTTP
    IP Protocol= 6
    Port Number= 80
      Status= Closed
  Description= Used by TLS VPNs
    IP Protocol= 6
    Port Number= 443
      Status= Closed
  Description= Used by PPTP VPNs
    IP Protocol= 6
    Port Number= 1723
      Status= Closed
  Description= VoIP
    IP Protocol= 6
    Port Number= 5060
      Status= Closed
  Description= Used by IKEv2 (IPSec VPN)
    IP Protocol= 17
    Port Number= 500
      Status= Closed
  Description= VoIP
    IP Protocol= 17
    Port Number= 5060
      Status= Closed
  Description= May be used by IKEv2 (IPSec VPN)
    IP Protocol= 17
    Port Number= 4500
      Status= Closed
  Description= ESP, used by IPSec VPNs
    IP Protocol= 50
    Port Number= 0
      Status= Closed
  Additional Connection Capability:
Advanced GAS Settings:
  GAS query response buffering time= 1000
```

```
        GAS DOS detection= Disabled
        GAS DOS maximum request number= 200
      Hotspot 2.0 Capability:
        Operatiing Class Indication= Unspecified

ruckus#
```

show hs20sp all

To display information about the Hotspot 2.0 Service Provider, use the following command:

show hs20sp all

Syntax Description

show

Display information

hs20sp

Display Hotspot 2.0 Service Provider

all

Display all HS2.0 Service Providers

Defaults

None.

Example

```
ruckus# show hs20sp all
Hotspot 2.0 Service Provider:
  ID:
    1:
      NAME= provider1
      Description=
      Realm List:
      Domain Name List:
      Roaming Consortium List:
      3GPP Cellular Network information:


ruckus#
```

show hs20sp name

To display information about a specific Hotspot 2.0 Service Provider, use the following command:

show hs20sp name *WORD*

Syntax Description

show

Display information

hs20sp name

Display specific Hotspot 2.0 Service Provider

WORD

The name of the HS2.0 Service Provider

Defaults

None.

Example

```
ruckus# show hs20sp name provider1
Hotspot 2.0 Service Provider:
  ID:
    1:
      NAME= provider1
      Description=
      Realm List:
      Domain Name List:
      Roaming Consortium List:
      3GPP Cellular Network information:

ruckus#
```

Show Guest Policy Commands

Use the following commands to display guest access services.

show guest-access-service

To display a list of guest access services or a specific service, use the following command:

show guest-access-service [**all** | **name** *WORD*]

Example

```
ruckus# show guest-access all
Guest Access:
  Name = guestpolicy1
  Onboarding Portal:
    Aspect = Guest pass and ZeroIT
  Authentication:
    Mode = Use Guest Pass and Social login authentication
  Title = hello
  Terms of Use:
    Status = Disabled
  Redirection:
    Mode = To the URL that the user intends to visit
  Restricted Subnet Access:
      Rules:
        1:
          Description=
          Type= Deny
          Destination Address= local
          Destination Port= Any
          Protocol= Any
        2:
          Description=
          Type= Deny
          Destination Address= 10.0.0.0/8
          Destination Port= Any
          Protocol= Any
        3:
          Description=
          Type= Deny
          Destination Address= 172.16.0.0/12
          Destination Port= Any
          Protocol= Any
        4:
          Description=
          Type= Deny
          Destination Address= 192.168.0.0/16
          Destination Port= Any
          Protocol= Any

  Restricted IPv6 Access:
      Rules:
        1:
          Description=
          Type= Deny
          Destination Address= local
          Destination Port= Any
          Protocol= Any
          ICMPv6 Type= Any

ruckus#
```

show guest-access-generation

To display generation information for guest access, use the following command:

show guest-access-generation

Example

```
ruckus(config)# show guest-access-generation
  Authentication Server: radius1
  Force HTTPS Redirection: Disabled
ruckus(config)#
```

show portal-auth-generation

To display generation information for portal authentication, use the following command:

show portal-auth-generation

Example

```
ruckus(config)# show portal-auth-generation
  Force DNS server: Disabled
ruckus(config)#
```

Show Hotspot 2.0 Operator Commands

Use the following commands to display Hotspot 2.0 Operators.

show hs20op

To display a list of Hotspot 2.0 operators, use the following command:

show hs20op [all|name *WORD*]

Example

```
ruckus# show hs20op all
```

Show Hotspot 2.0 Service Provider Commands

Use the following commands to display Hotspot 2.0 Service Providers.

show hs20sp

To display a list of Hotspot 2.0 service providers, use the following command:

show hs20sp [all|name *WORD*]

Example

```
ruckus# show hs20sp all
```

Show Role Commands

Use the **show role** commands to display details about roles that have been created on the controller.

show role all

To display a list of all roles that have been created on the controller, use the following command:

show role all

Syntax Description

show
Display information

role
Display role information

all
All roles that have been created

Defaults

None.

Example

```
ruckus# show role all
Role:
  ID:
    1:
      Name= Default
      Description= Allow Access to All WLANs
      Group Attributes=
      Guest Pass Generation= Allowed
      ZoneDirector Administration:
        Status= Allowed
        Allow ZoneDirector Administration= Super Admin
      Allow All WLANs:
        Mode= Allow access to all WLANs
      Access Control Policy= Disallowed


ruckus#
```

show role name

To display information about the specific role, use the following command:

show role name *WORD*

Syntax Description

show
Display information

role name

Display role information

WORD

The name of the role

Defaults

None.

Example

```
ruckus# show role name Default
Role:
  ID:
    1:
      Name= Default
      Description= Allow Access to All WLANs
      Group Attributes=
      Guest Pass Generation= Allowed
      ZoneDirector Administration:
        Status= Allowed
        Allow ZoneDirector Administration= Super Admin
      Allow All WLANs:
        Mode= Allow access to all WLANs
      Access Control Policy= Disallowed

ruckus#
```

Show VLAN Pool Commands

Use the following commands to display VLAN pools.

show vlan-pool

To display a list of VLAN pools, use the following command:

show vlan-pool [**all** | **name** *WORD*]

Example

```
ruckus# show vlan-pool all
VLAN Pool:
  ID:
    1:
      Name = vlan pool 1
      Description =
      Option = 1
      VLANSET = 10,20,30,40,50-55


ruckus#
```

Show User Commands

Use the **show user** commands to display details about user accounts that exist on the controller.

show user all

To display a list of all existing user accounts, use the following command:

show user all

Syntax Description

show
: Display information

user
: Display user information

all
: All existing user accounts

Defaults

None.

Example

```
ruckus# show user all
User:
ID:
1:
User Name= test22
Full Name= test11
Password= test1234
Role= Default
```

show user name

To display information about the specific user, use the following command:

show user name *user_name*

Syntax Description

show
: Display information

user name
: Display user information

WORD
: The name of the user

Defaults

None.

Example

```
ruckus# show user name test22
User:
ID:
1:
User Name= test22
Full Name= test11
Password= test1234
Role= Default
```

Show Currently Active Clients Commands

Use the **show current-active-clients** commands to display a list of wireless clients that are associated with the APs that the controller manages.

show current-active-clients all

To display a list of all existing user accounts, use the following command:

show current-active-clients all

Syntax Description

show
Display information

current-active-clients
Display currently active wireless clients

all
All active wireless clients

Defaults

None.

Example

```
ruckus# show current-active-clients all
Current Active Clients:
Clients:
Mac Address= 00:22:fb:5c:e2:32
User/IP= 172.18.30.2
User/IPv6=
Access Point= 04:4f:aa:13:30:f0
BSSID= 04:4f:aa:13:30:fa
Connect Since=2011/03/01 02:48:22
Auth Method= OPEN
WLAN= 11jojoe
VLAN= None
Channel= 6
Radio= 802.
Signal= 0
Status= Authorized

Last 300 Events/Activities:
Activity:
Date/Time= 2011/03/01 02:49:05
Severity= Low
User=
Activities= User[00:22:fb:5c:e2:32] joins WLAN[11jojoe] from AP[04:4f:aa:13:30:f0]
Activity:
Date/Time= 2011/03/01 02:48:22
Severity= Low
User=
Activities= User[00:22:fb:5c:e2:32] joins WLAN[11jojoe] from AP[04:4f:aa:13:30:f0]
...
...
ruckus#
```

show current-active-clients mac

To display information about the specific active client, use the following command:

show current-active-clients mac *MAC*

Syntax Description

show

Display information

current-active-clients mac

Display currently active wireless clients

MAC

The MAC address of the wireless client

Defaults

None.

Example

```
ruckus# show current-active-clients mac 6c:62:6d:1b:e3:00
Current Active Clients:
Clients:
Mac Address= 6c:62:6d:1b:e3:00
User/IP= 192.168.11.11
User/IPv6=
Access Point= 04:4f:aa:0c:b1:00
BSSID= 04:4f:aa:0c:b1:08
Connect Since=2012/01/10 06:22:44
Auth Method= OPEN
WLAN= Ruckus1
VLAN= None
Channel= 6
Radio= 802.11gn
Signal= 53
Status= Authorized
Received from client= 20746 pkts / 6274531 bytes
Transmitted to client= 25777 pkts / 6714433 bytes
Tx. drops due to retry failure= 1 pkts

Last 300 Events/Activities:
Activitiy:
Date/Time= 2012/01/10 06:22:44
Severity= Low
User=
Activities= User[6c:62:6d:1b:e3:00]> joins WLAN[Ruckus1] from AP[7962 - MAP@04:4f:aa:0c:b1:00]
Activitiy:
Date/Time= 2012/01/09 18:52:28
Severity= Low
User=
Activities= User[6c:62:6d:1b:e3:00]disconnects from WLAN[Ruckus1] at AP[7363 - RAP@00:24:82:3f:14:60]
Activitiy:
Date/Time= 2012/01/08 06:08:52
Severity= Low
User=
Activities= AP[7363 - RAP@00:24:82:3f:14:60] radio [11g/n] detects User[6c:62:6d:1b:e3:00] in
WLAN[Ruckus1] roams from AP[7962 - MAP@04:4f:aa:0c:b1:00]
...
...
ruckus#
```

Show Mesh Commands

Use the **show mesh** commands to display the controller's mesh network configuration and topology.

show mesh info

To display a list of mesh information, use the following command:

show mesh info

Syntax Description

show

Display information

mesh

Display mesh network information

info

Show mesh information

Defaults

None.

Example

```
ruckus# show mesh info
Mesh Settings:
  Mesh Status= Enabled
  Mesh Name(ESSID)= Mesh-951608000220
  Mesh Passphrase= bzj9Y0kEpkxOPzPXyKqLrJHZSAAnbtfaTm7Ebh6qps24PFPcc5MtCiijGGwFZBG
  Mesh Radio Option= 5G
  Mesh Uplink Selection Algorithm = default(static)
  Mesh Hop Detection:
    Status= Disabled
  Mesh Downlinks Detection:
    Status= Disabled
  Tx. Rate of Management Frame=  2Mbps
  Beacon Interval= 200ms
  Zero-Touch-Mesh status= Enabled
Zero Touch Mesh Pre-Approved Serial Number List:
serial number = 921802014959, approved = 0, time = 0, id = 1
serial number = 441e981cf0d0, approved = 0, time = 0, id = 2
serial number = 4f1e681cf3f0, approved = 0, time = 0, id = 3
serial number = c41e781bd7c0, approved = 0, time = 0, id = 4

ruckus#
```

show mesh topology

To display the topology of existing mesh networks, use the following command:

show mesh topology

Syntax Description

show

Display information

mesh

Display mesh network information

topology

Show mesh topology

Defaults

None.

Example

```
ruckus# show mesh topology
Mesh Topology(Mesh-951608000220):
  Root Access Points= d4:c1:9e:35:c9:50
    Signal (dB) Downlink=  / Uplink=
    Description=
    Channel= 36 (11ac)
    IP Address= 192.168.0.3
    Mesh Access Points= 44:1e:98:1b:f0:d0
      Signal (dB) Downlink= 44 / Uplink= 36
      Description=
      Channel= 36
      IP Address= 192.168.0.10

ruckus#
```

Show Dynamic PSK Commands

Use the **show dynamic-psks** commands to display information about Dynamic PSKs that have been generated. Use the following command:

show dynamic-psks

show dynamic-psks

Syntax Description

show

Display information

dynamic-psks

Display dynamic PSKs that have been generated

Defaults

None.

Example

```
ruckus# show dynamic-psks
Generated Dynamic PSKs:
DPSK:
User= BatchDPSK_User_1
Mac Address= 00:00:00:00:00:00
Created= 2011/03/01 03:30:01
Expired= Unlimited
DPSK:
User= BatchDPSK_User_2
Mac Address= 00:00:00:00:00:00
Created= 2011/03/01 03:30:02
Expired= Unlimited
DPSK:
User= DPSK-User-2
Mac Address= 00:11:22:33:44:55
Created= 2011/03/01 03:30:47
Expired= Unlimited
```

Show Guest Pass Commands

Use the **show guest-passes** commands to display information about guest passes that have been generated. Use the following command:

show guest-passes

show guest-passes

show guest-passes

Syntax Description

show

Display information

guest-passes

Display guest passes that have been generated

Defaults

None.

Example

```
ruckus# show guest-passes
Generated Guest Passes:
ID:
Guest Name= John Doe
Remarks=
Expires= 2012/01/11 08:32:15
Re-auth=
Creator= ruckus
Sharable= No
Wlan= Ruckus-Guest

ruckus#
```

show guest-access-generation

Display generation information for guest access.

Examples

```
ruckus# show guest-access-generation
  Authentication Server: radius1
  Force HTTPS Redirection: Disabled
ruckus#
```

show portal-auth-generation

Display generation information for portal authentication.

Examples

```
ruckus# ruckus# show portal-auth-generation
  Force DNS server: 192.168.40.10
ruckus#
```

Show Rogue Device Commands

Use the **show rogue-devices** commands to display information about rogue devices that the controller has detected on the network. Use the following command.

show rogue-devices

show rogue-devices

Syntax Description

show

Display information

rogue-devices

Display rogues devices that have been detected on the network

Defaults

None.

Example

```
ruckus# show rogue-devices
Current Active Rogue Devices:
Rogue Devices:
Mac Address= 00:25:c4:52:1c:a1
Channel= 6
Radio= 802.11bg
Type= AP
Encryption= Open
SSID= V54-HOME001
Last Detected= 2011/03/01 02:03:43

Known/Recognized Rogue Devices:
```

Show Events and Activities Commands

Use the **show events-activities** commands to display information events and network activities that have been recorded by the controller. Use the following command:

show events-activities

show events-activities

Syntax Description

show

Display information

events-activities

Display a list of events and activities records by the controller

Defaults

None.

Example

```
ruckus# show events-activities
ruckus# show events-activities
Last 300 Events/Activities:
Activitiy:
Date/Time= 2012/01/10 08:33:17
Severity= Low
User=
Activities= Admin[ruckus] logs in from [192.168.11.7]
Activitiy:
Date/Time= 2012/01/10 08:32:00
Severity= Low
User=
Activities= WLAN[Ruckus-Guest] with BSSID[04:4f:aa:4c:b1:08 configuration has been updated on radio
[11g/n] of AP[7962 - MAP@04:4f:aa:0c:b1:00]
Activitiy:
Date/Time= 2012/01/10 08:32:00
Severity= Low
User=
...
...
```

Show Alarm Commands

Use the **show alarm** commands to display alarms that have been generated by the controller. Use the following command:

show alarm

show alarm

Syntax Description

show

Display information

alarm

Display a list of alarms that have been generated by the controller

Defaults

None.

Example

```
ruckus# show alarm
Last 300 Alarms:
  Alarms:
    Date/Time= 2013/03/27 15:36:59
    Name= AP Lost Contact
    Severity= High
    Activities= Lost contact with AP[7372 - MAP@c0:c5:20:3b:91:f0]
  Alarms:
    Date/Time= 2013/03/18 14:44:21
    Name= ZD warm restart
    Severity= Medium
    Activities= System warm restarted with [user reboot].
...
...
ruckus#
```

Show License Commands

Use **the show license** commands to display the controller's license information, including the model number, the maximum number of APs that it can support, and the maximum number of wireless clients that managed APs can support. Use the following command:

show license

show license

Syntax Description

show

Display information

license

Display the controller's license information

Defaults

None.

Example

```
ruckus# show license
License:
  Model= ZD1112
  Max. AP Number= 12
  Max. Client Number= 1250

ruckus#
```

Show USB Software Commands

Use the **show usb-software** command to display current USB software package information.

show usb-software

show usb-software

Syntax Description

show

Display information

usb-software

Display USB software package information

Defaults

None.

Example

```
ruckus# show usb-software
Sorry, the USB Software hasn't been found.
ruckus#
```

Show Application Policy Commands

Use the following commands to display application policies, user-defined applications and application port-mapping settings.

show app-denial-policy

Displays the application denial policy settings.

Example

```
ruckus# show app-denial-policy
Application Denial Policy:
  ID:
    1:
      Name= facebook
      Description= deny facebook
      Default Mode= accept
      Rules:
        1:
          Application= HTTP hostname
          Description= facebook.com

ruckus#
```

show user-defined-app

Displays the user defined application settings.

Example

```
ruckus# show user-defined-app
User Defined Application:
  ID:
    1:
      Application= angry birds
      DST-IP= 216.146.46.10
      Netmask= 255.255.255.0
      DST-Port= 5050
      Protocal= tcp

ruckus#
```

show app-port-mapping

Displays the application category mapping settings.

Example

```
ruckus# show app-port-mapping
Application Port Mapping:
  ID:
    1:
      Name= 2100-tcp
      Port= 2100
      Protocol= tcp
      Description= Facebook

ruckus#
```

Show Session-Timeout Commands

Use the **show session-timeout** command to display the current session timeout interval.

show session-timeout

show session-timeout

Syntax Description

show

Display information

session-timeout

Display the current session timeout interval

Defaults

None.

Example

```
ruckus# show session-timeout
Current session timeout interval is 30 minutes

ruckus#
```

Show Active Wired Client Commands

Use the **show active-wired-client** commands to display information about currently active wired clients.

show active-wired-client all

show active-wired-client all

show active-wired-client mac

show active-wired-client mac *MAC*

Syntax Description

show
: Display information

active-wired-client
: Display the currently active wired client information

all
: Show all wired clients

mac
: Show a specific client information by MAC address

MAC
: The MAC address of the specific client

Defaults

None.

Example

```
ruckus# show active-wired-client all
Current Active Wired Clients:

ruckus#
```

Show RADIUS Statistics Commands

Use the following commands to display RADIUS statistics or to reset RADIUS statistics.

show radius-statistics

To display a list of RADIUS server statistics, use the following command:

show radius-statistics [**server-all** | **server-name** *WORD*] | [**wlan-all** | **wlan-name** *NAME*] [**latest-ten-min** | **latest-one-hour** | **latest-one-day**]

Syntax Description

show radius-statistics
Display list of RADIUS server statistics.

server-all
Display statistics for all servers. (Default: recorded from power on.)

server-name *WORD*
Display statistics for the specified server. (Default: recorded from power on.)

wlan-all
Display statistics for all WLANs. (Default: recorded for the last day.)

wlan-name *NAME*
Display statistics for the specified WLAN. (Default: recorded for the last day.)

latest-ten-min
Display statistics for the last 10 minutes.

latest-one-hour
Display statistics for the last hour.

latest-one-day
Display statistics for the last day.

reset radius-statistics

To reset RADIUS statistics, use the following command:

reset radius-statistics [**server-all** | **server-name** *WORD*] [**master** | **standby**] [**latest-ten-min** | **latest-one-hour** | **latest-one-day**]

Syntax Description

reset radius-statistics
Reset RADIUS server statistics.

server-all
Reset statistics for all servers to zero. (Default: recorded from power on.)

server-name *WORD*
Reset statistics for the specified server to zero. (Default: recorded from power on.)

wlan-all
Reset statistics for all WLANs. (Default: recorded for the last day.)

wlan-name *NAME*
Reset statistics for the specified WLAN. (Default: recorded for the last day.)

master
Reset statistics of the master server to zero.

standby
Reset statistics of the standby server to zero.

latest-ten-min
Reset statistics recorded for the last 10 minutes

latest-one-hour
Reset statistics recorded for the last hour

latest-one-day
Reset statistics recorded for the last day

Show Load Balancing Commands

Use the following commands to display AP load balancing information.

show load-balance

To display AP load balancing information, use the following command:

show load-balance

Example

```
ruckus# show load-balance
*** Show AP load balance
Radio---Enable--Scan--ActThresh---AdjThresh---WeakBypass---StrongBypass---NewActTrigger---Headroom
 2GHz      0   2000         10          50          33            55              3             3
 5GHz      0   2000         10          43          35            55              3             3
----MAC Address----Cli-New-Lim---Allow-----Fallbk----Adjacent 2-GHz Radios [MacAdrs FwdRssi RevRssi
SumRssi]
 c4:10:8a:1f:d1:f0   1   0   0 1000000000 0000000000
 c0:c5:20:3b:91:f0   2   0   0 1000000000 0000000000
----MAC Address----Cli-New-Lim---Allow-----Fallbk----Adjacent 5-GHz Radios [MacAdrs FwdRssi RevRssi
SumRssi]
 c4:10:8a:1f:d1:f0   0   0   0 1000000000 0000000000
 c0:c5:20:3b:91:f0   1   0   0 1000000000 0000000000
ruckus#
```

Monitor AP MAC Commands

Use the **monitor ap mac** command to monitor details on a specific access point.

monitor ap mac

monitor ap mac *MAC*

Syntax Description

monitor

Begin monitoring mode

ap mac

Designate the access point to begin monitoring

MAC

The MAC address of the specific access point

Defaults

None.

Example

```
ruckus# monitor ap mac 04:4f:aa:0c:b1:00
------------------------------------------------------------------------------
ID MAC Approved Device-Name Description
104:4f:aa:0c:b1:00 Yes7962 - MAP7962 MAP (Living
------------------------------------------------------------------------------
IPv4-ADDRMASK GATEWAYPRI-DNS
192.168.11.6 255.255.255.0192.168.11.1
------------------------------------------------------------------------------
Radio-TypeRX-Packets(M)/RX-Bytes(G) TX-Packets(M)/TX-Bytes(G) Retries(%)
Radio a/n 36.9/2.028.6/2.00.0
Radio-TypeRX-Packets(M)/RX-Bytes(G) TX-Packets(M)/TX-Bytes(G) Retries(%)
Radio b/g/n 37.8/2.012.4/2.00.3
------------------------------------------------------------------------------
Status Mode LocationUplink-Status
EnabledAuto Living Room Smart
------------------------------------------------------------------------------------------------------------------
------------------------------------------------------
ID MAC Approved Device-Name Description
104:4f:aa:0c:b1:00 Yes7962 - MAP7962 MAP (Living
------------------------------------------------------------------------------
IPv4-ADDRMASK GATEWAYPRI-DNS
192.168.11.6 255.255.255.0192.168.11.1
------------------------------------------------------------------------------
Radio-TypeRX-Packets(M)/RX-Bytes(G) TX-Packets(M)/TX-Bytes(G) Retries(%)
Radio a/n 36.9/2.028.6/2.00.0
Radio-TypeRX-Packets(M)/RX-Bytes(G) TX-Packets(M)/TX-Bytes(G) Retries(%)
Radio b/g/n 37.8/2.012.4/2.00.3
------------------------------------------------------------------------------
Status Mode LocationUplink-Status
EnabledAuto Living Room Smart
------------------------------------------------------------------------------------------------------------------
------------------------------------------------------
ID MAC Approved Device-Name Description
104:4f:aa:0c:b1:00 Yes7962 - MAP7962 MAP (Living
------------------------------------------------------------------------------
IPv4-ADDRMASK GATEWAYPRI-DNS
```

```
192.168.11.6 255.255.255.0192.168.11.1
--------------------------------------------------------------------------------
Radio-TypeRX-Packets(M)/RX-Bytes(G) TX-Packets(M)/TX-Bytes(G) Retries(%)
Radio a/n 36.9/2.028.6/2.00.0
Radio-TypeRX-Packets(M)/RX-Bytes(G) TX-Packets(M)/TX-Bytes(G) Retries(%)
Radio b/g/n 37.8/2.012.4/2.00.3
--------------------------------------------------------------------------------
Status Mode LocationUplink-Status
EnabledAuto Living Room Smart
--------------------------------------------------------------------------------


ruckus#
```

Monitor Currently Active Client Commands

Use the **monitor current-active-clients** command to monitor details on a specific client.

monitor current-active-clients

monitor current-active-clients mac *MAC*

Syntax Description

monitor

Begin monitoring mode

current-active-clients mac

Designate the currently active client to begin monitoring

MAC

The MAC address of the specific client

Defaults

None.

Example

```
ruckus# monitor current-active-clients mac 00:22:fb:ad:1b:2e
--------------------------------------------------------------------------------
04:4f:aa:0c:b1:00 192.168.11.7 Ruckus1 None Authorized
--------------------------------------------------------------------------------
04:4f:aa:0c:b1:0c153 11an43 OPEN
--------------------------------------------------------------------------------
44.3/6.743.2/17.0 36
--------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------


ruckus#
```

monitor current-active-clients-mcs-info

To monitors MCS information for the specified current active clients, use the following command:

monitor current-active-clients-mcs-info sta-mac *MAC* **ap-mac** *MAC* **bssid** *BSSID*

Syntax Description

monitor

Begin monitoring mode

current-active-clients-mcs-info

Monitor MCS info of currently active clients

sta-mac *MAC*

The MAC address of the specific client

ap-mac *MAC*

MAC address of the AP

bssid *BSSID*

Monitor clients connected to the specified BSSID

Monitor Sysinfo Commands

Use the **monitor sysinfo** command to monitor system information.

monitor sysinfo

monitor sysinfo

Syntax Description

monitor

Begin monitoring mode

sysinfo

Display the system information

Example

```
ruckus# monitor sysinfo
------------------------------------------------------------------------------
IPv4-ADDR IPv6-ADDR MAC Uptime Model MAX-APs
192.168.11.100NULL 00:13:11:01:01:01 12d 1h 29mZD111212
------------------------------------------------------------------------------
Number-of-APs Number-of-ClientsNumber-of-Rogues Name
2 10ruckus
------------------------------------------------------------------------------
 Usage of 1 hr|Usage of 24 hr
Max-Concurrent-Users TX-BytesRogues | Max-Concurrent-Users TX-BytesRogues
12.33M 02297.58M 2
------------------------------------------------------------------------------
Used-Bytes Used-Percentage Free-BytesFree-Percentage
71675904 55% 57483264 45%
------------------------------------------------------------------------------------------------------------
------------------------------------------------------
IPv4-ADDR IPv6-ADDR MAC Uptime Model MAX-APs
192.168.11.100NULL 00:13:11:01:01:01 12d 1h 29mZD111212
------------------------------------------------------------------------------
Number-of-APs Number-of-ClientsNumber-of-Rogues Name
2 10ruckus
------------------------------------------------------------------------------
 Usage of 1 hr|Usage of 24 hr
Max-Concurrent-Users TX-BytesRogues | Max-Concurrent-Users TX-BytesRogues
12.39M 02297.64M 2
------------------------------------------------------------------------------
Used-Bytes Used-Percentage Free-BytesFree-Percentage
71675904 55% 57483264 45%
------------------------------------------------------------------------------------------------------------
------------------------------------------------------
```

Configuring Controller Settings

Configuration Commands Overview

This section describes the commands that you can use to configure ZoneDirector via the **config** context. From the privileged commands context, type **config** to enter the configuration context. To show a list of commands available from within the **config** context, type **help** or **?**.

General Config Commands

The following section describes general configuration commands can be executed from within the **config** context. To save your configuration changes and exit the **config** context, use the end or exit command. To discard your changes and exit the **config** context, use the abort or quit command.

Some sub-contexts within the **config** context do not allow the use of the abort or quit commands; you must save your changes and exit the sub-context. Many commands offer a corresponding “no” command to undo your configuration changes (for example, use “no wlan” to delete a WLAN).

help

Shows available commands.

history

Shows a list of previously run commands.

abort

Exits the **config** context without saving changes. Some contexts do not allow **abort**, you must save your changes to exit the context (**end** or **exit**).

end

Saves changes, and then exits the **config** context.

exit

Saves changes, and then exits the **config** context.

quit

Exits the **config** context without saving changes. Some contexts do not allow quit, you must save your changes to exit the context (**end** or **exit**).

Configure Context Show Commands

Use the following show commands to display configured settings within the **config** context.

show aaa

Displays a list of available AAA servers.

show dhcp

Displays a list of available DHCP servers.

show admin

Displays information about the administrator login settings.

Example

```
ruckus(config)# show admin
Administrator Name/Password:
  Name= admin
  Password= ********
  Authenticate:
    Mode= Authenticate using the admin name and password

ruckus(config)#
```

show mgmt-acl

Displays a list of all management access controls.

show mgmt-acl-ipv6

Displays a list of IPv6 management access controls.

show static-route

Displays a list of all static route entries.

show static-route-ipv6

Shows the static route for IPv6.

show ap

Displays a list of all approved devices.

show l2acl

Displays a list of L2 Access Control Lists.

show l3acl

Displays a list of L3/L4/IP ACL.

show whitelist

Displays a list of client isolation white lists.

show l3acl-ipv6

Displays a list of L3/L4/IPv6 ACL.

show prece

Displays a list of Precedence Policies.

Defaults

Name= Default

Description= None

Attribute=vlan

- Order = AAA,Device Policy,WLAN

Attribute = rate-limit

- Order = AAA,Device Policy,WLAN

Example

```
ruckus(config)# show prece
Precedence Policy:
  ID:
    1:
      Name= Default
      Description=
      Rules:
        1:
          Description=
          Attribute = vlan
          Order = AAA,Device Policy,WLAN
        2:
          Description=
          Attribute = rate-limit
          Order = AAA,Device Policy,WLAN


ruckus(config)#
```

show dvcpcy

Displays a list of Device Policies.

show user-app-ip

Displays the IP-based user-defined applications.

Example

```
ruckus(config)# show user-app-ip
User defined application hasn't been found.
ruckus(config)#
```

show user-app-port

Displays the user-defined port-based application settings.

Example

```
ruckus(config)# show user-app-port
Application based on port hasn't been found.
ruckus(config)#
```

show url-filtering

Displays URL Filtering profiles.

Example

```
ruckus(config)# show url-filtering
Url Filtering Profiles:
    1:
      Url Name: URL Filter 1
      Filter Type: NO_ADULT
      Number of Blocked Categories: 19
      Blocked Categories:
              Abortion
              Adult and Pornography
              Confirmed SPAM Sources
              Cult and Occult
              Dating
              Dead Sites
              Hate and Racism
              Illegal
              Keyloggers and Monitoring
              Malware Sites
              Marijuana
              Nudity
              Pay to Surf
              Phishing and Other Frauds
              SPAM URLs
              Spyware and Adware
              Unconfirmed SPAM Sources
              Violence
              Weapons
      Blacklist-Domains: Not Configured
      Whitelist-Domains: Not Configured
```

```
        Google Safe Search: Disabled
        YouTube Safe Search: Disabled
        Bing Safe Search: Disabled
ruckus(config)#
```

show load-balancing

Displays information about Load balancing.

Example

```
ruckus(config)# show load-balancing
Load Balancing:
  Radio 0:
      Status= Disabled
      AdjacentThreshold= 50
      WeakBypass= 33
      StrongBypass= 55
      ActivationThreshold= 10
      NewTrigger= 3
      Headroom= 3

  Radio 1:
      Status= Disabled
      AdjacentThreshold= 43
      WeakBypass= 35
      StrongBypass= 55
      ActivationThreshold= 10
      NewTrigger= 3
      Headroom= 3


ruckus(config)#
```

show wlan

Displays a list of all WLAN services (Names).

show wlan-group

Displays a list of existing WLAN groups.

Example

```
ruckus(config)# show wlan-group
WLAN Group:
  ID:
    1:
      Name= Default
      Description= Default WLANs for Access Points
      WLAN Service:
        WLAN1:
          NAME= Ruckus1
          VLAN=


ruckus(config)#
```

show role

Displays a list of roles.

show vlan-pool

Displays a list of VLAN pools.

show user

Displays a list of users.

show hotspot

Displays a list of hotspot entries.

show guest-access-service

To display a list of guest access services, use the following command:

show guest-access-service

show guest-access-generation

To display generation information for guest access, use the following command:

show guest-access-generation

Example

```
ruckus(config)# show guest-access-generation
  Authentication Server: Local Database
  Force HTTPS Redirection: Disabled
ruckus(config)#
```

show portal-auth-generation

To display generation information for portal authentication, use the following command:

show portal-auth-generation

Example

```
ruckus(config)# show portal-auth-generation
  Force DNS server: Disabled
  Force Web Portal HTTPS Redirection: Enabled
ruckus(config)#
```

show ap-group

To display all or specified AP groups, use the following command:

show ap-group [**all** | **name** *WORD*]

show ap-policy

Displays the ap policy settings.

Example

```
ruckus(config)# show ap-policy
  Automatically approve all join requests from APs= Enabled
  Limited ZD Discovery:
    Status= Disabled
  Management VLAN:
    Status= Keep AP's setting
  Auto Recovery= 30 minutes
ruckus(config)#
```

show usb-software

Displays USB Software Package information.

show location-services

Displays a list of configured location services.

show hs20op

Displays a list of hotspot 2.0 operators.

show hs20sp

Displays a list of hotspot 2.0 service providers.

show mdnsproxyrule

To display Mdnsproxy rules, use the following command:

show mdnsproxyrule *ID-From ID-to*

show mdnsproxy

To display Mdnsproxy status, use the following command:

show mdnsproxy *ID-From ID-to*

show bonjour-policy

To display Bonjour policy rules, use the following command:

show bonjour-policy *name*

Configure Location Services Commands

This section describes the commands that you can use to configure Location Service entries on the controller. The following commands can be executed from within the **config-location-services** context. To show a list of commands available from within the **aaa** context, type **help** or **?**.

location-services

To create or modify a location server, use the following command:

location-services *WORD*

Syntax Description

location-services *WORD*
Creates a new location server or modifies an existing location server.

abort
Exits the config-location-services context without saving changes.

end
Saves changes, and then exits the config-location-services context.

exit
Saves changes, and then exits the config-location-services context.

quit
Exits the config-location-services context without saving changes.

fqdn *WORD*
Sets the location server FQDN.

port *PORT-NUM*
Sets the location server port.

password *WORD*
Sets the location server preshared key.

show
Displays configured location services for all venues.

Example

```
ruckus(config)# location-services locationserver1
The location venue 'locationserver1' has been created. To save it, type 'end' or 'exit'.
ruckus(config-location-services)# fqdn ruckuslbs.ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-location-services)# password secret1234
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-location-services)# show
Venue:
  ID:
    :
      Status                = Disabled
      Venue Name            = locationserver1
      Location Server FQDN  = ruckuslbs.ruckuswireless.com
      Location Server Port  = 8883
      Location Server PSK   = secret1234

ruckus(config-location-services)# end
```

```
The location venue 'locationserver1' has been updated and saved.
Your changes have been saved.
ruckus(config)#
```

no location-services

To delete a location server from the list of location servers, use the following command:

no location-services *WORD*

Configure AAA Server Commands

This section describes the commands that you can use to configure AAA server entries on the controller. The following commands can be executed from within the **config-aaa** context. To show a list of commands available from within the context, type **help** or **?**.

aaa

Use the following command to configure an AAA server entry and enter the config-aaa context:

aaa *WORD*

Syntax Description

abort
Exits the config-aaa context without saving changes.

end
Saves changes, and then exits the config-aaa context.

exit
Saves changes, and then exits the config-aaa context.

quit
Exits the config-aaa context without saving changes.

name *WORD*
Sets the AAA server name.

show
Displays a list of available AAA servers.

CaseSensitive
Sets the ‘CaseSentitive’ value of AD/LDAP server to ‘enabled’.

type
Sets the type of AAA server.

type ad
Sets the AAA server type to 'Active Directory'.

type ldap
Sets the AAA server type to 'LDAP'.

type ad-802.1x
Sets the AAA server type to 'Active Directory For 802.1x '.

type radius-auth
Sets the AAA server type to 'RADIUS'.

type tacplus-auth
Sets the AAA server type to 'TACPLUS'.

type radius-acct
Sets the AAA server type to 'RADIUS Accounting'.

radius-encryption
Sets the AAA server encryption type.

radius-encryption tls
Sets the AAA server encryption type to 'TLS'.

auth-method pap
Sets the authentication method to PAP.

auth-method chap
Sets the authentication method to CHAP.

ip-addr *IP-ADDR*
Sets the AAA server's IP/IPv6 address.

port *PORT-NUM*
Sets the AAA server's port.

tacplus-service *WORD*
Sets TACPLUS service name with length (1-64 bytes).

domain-name *WORD*
Sets the windows/base domain name.

domainServer-deviceName*WORD*
Sets the domain server device name.

no radius-encryption
Disables the AAA server encryption.

no ad-global-catalog
Disables global catalog support.

no grp-search
Disables group attribute lookup support.

no encryption-TLS
Disable the TLS Encryption

no backup
Disables the backup function.

ad-global-catalog
Enables global catalog support.

grp-search
Enables group attribute lookup support.

admin-dn *WORD*
Sets the admin domain name.

admin-password *WORD*
Sets the admin password.

key-attribute *WORD*
Sets the LDAP key attribute.

search-filter *WORD*
Sets the LDAP search filter.

radius-secret *WORD*
Sets the AAA server's shared secret.

tacplus-secret *WORD*
Sets the TACPLUS server's shared secret.

encryption-TLS
Enables the TLS Encryption

backup
Enables the backup function.

backup-ip-addr *IP-ADDR*
Sets the backup AAA server's IP/IPv6 address.

backup-port *PORT-NUM*
Sets the backup AAA server's port.

backup-radius-secret *WORD*
Sets the backup AAA server's shared secret.

request-timeout *NUMBER*
Sets the failover request timeout (2~20 seconds).

retry-count *NUMBER*
Sets the failover retry count (2~10 times).

consecutive-drop-packet *NUMBER*
Sets the number of consecutive dropped packet (range:1~10 , default is 1).

reconnect-primary-interval *NUMBER*
Sets the failover re-connect to primary interval (1~86400 minutes).

Example

```
ruckus(config)# aaa activedir
The AAA server 'activedir' has been created. To save the AAA server, type 'end' or 'exit'.
ruckus(config-aaa)# type ad
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-aaa)# ip-addr 192.168.10.40
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-aaa)# show
AAA:
  ID:
    :
      Name= activedir
      Type= Active Directory
      IP Address= 192.168.10.40
      Port= 389
      Windows Domain Name=
      Global Catalog= Disabled
      Admin DN=
      Admin Password=
      Group Search= Enabled
      encryption-TLS = Disabled

ruckus(config-aaa)# end
The AAA server 'activedir' has been updated and saved.
Your changes have been saved.
ruckus(config)#
```

Configure DHCP Server Commands

This section describes the commands that you can use to configure DHCP server entries on the controller. These DHCP server entries are used by the DHCP Relay feature, if enabled for a tunneled WLAN. The following commands can be executed from within the **config-dhcp** context.

dhcp

Use the **dhcp** command from within the **config** context to create or edit a DHCP server entry.

dhcp *WORD*

Syntax Description

dhcp

Configure the DHCP server settings

WORD

Name of the DHCP server entry

Defaults

none

Example

```
ruckus(config)# dhcp dhcp_server_2
The DHCP server 'dhcp_server_2' has been created. To save the DHCP server, type 'end' or 'exit'.
ruckus(config-dhcp)# first 192.168.11.99
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dhcp)# show
DHCP servers for DHCP relay agent:
  ID:
    :
      Name= dhcp_server_2
      Description=
      IP Address= 192.168.11.99
ruckus(config-dhcp)# end
The DHCP server 'dhcp_server_2' has been updated and saved.
Your changes have been saved.
ruckus(config)# show dhcp
DHCP servers for DHCP relay agent:
  ID:
    1:
      Name= DHCP Server 1
      Description=
      IP Address= 192.168.11.1
      IP Address=
    2:
      Name= dhcp_server_2
      Description=
      IP Address= 192.168.11.99
      IP Address=
ruckus(config)#
```

no dhcp

Use the no dhcp command to delete a DHCP server entry.

no dhcp *WORD*

Example

```
ruckus(config)# no dhcp dhcp_server_2
The DHCP server 'dhcp_server_2' has been deleted.
ruckus(config)#
```

show

Displays a list of available DHCP servers.

show

name

Sets the DHCP server name.

name *WORD*

description

Sets the DHCP server description.

description *WORD*

first

Sets the DHCP server's first IP address.

first *IP-ADDR*

second

Sets the DHCP server's second IP address.

second *IP-ADDR*

no second

Deletes the DHCP server's second IP address.

no second *IP-ADDR*

Configure Admin Commands

Use the admin commands to enter the **config-admin** context to set the admin user name, password and admin authentication server settings.

admin

To enter the config-admin context and configure administrator preference, use the following command:

admin

Example

```
ruckus(config)# admin
ruckus(config-admin)
```

name

To set the administrator user name, use the following command:

name *WORD*

Syntax Description

name

Configure the admin name setting

WORD

Set the admin name to this name

Defaults

admin

Example

```
ruckus(config)# admin
ruckus(config-admin)# name admin
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-admin)# end
The administrator preferences have been updated.
Your changes have been saved.
ruckus(config)#
```

name password

To set the admin name and password at the same time, use the following command:

name *WORD* password *WORD*

Syntax Description

name

Configure the admin name setting

WORD

Set the admin name to this name

password

Configure the admin password

WORD

Set the admin password to this password

Defaults

admin

Example

```
ruckus(config)# admin
ruckus(config-admin)# name admin password admin
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-admin)# end
The administrator preferences have been updated.
Your changes have been saved.
ruckus(config)#
```

show

To view the current admin login and authentication settings, use the following command:

show

Example

```
ruckus(config-admin)# show
Administrator Name/Password:
  Name= admin
  Password= ********
  Authenticate:
    Mode= Authenticate using the admin name and password

ruckus(config-admin)#
```

Admin Authentication Commands

Use the **auth-server** commands to set the administrator authentication options with an external authentication server.

auth-server

To enable administrator authentication with a remote server and set the authentication server, use the following command:

auth-server *WORD*

Syntax Description

auth-server
Admin authentication with an external server

WORD
Set the authentication server to this server

Defaults

None.

Example

```
ruckus(config-admin)# auth-server radius
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-admin)#
```

no auth-server

To disable administrator authentication with a remote server, use the following command:

no auth-server

Syntax Description

no auth-server
Disable admin authentication with an external server

Defaults

None.

Example

```
ruckus(config-admin)# no auth-server
The command was executed successfully.
```

auth-server with-fallback

To enable fallback authentication (for use when the remote server is unavailable), use the following command:

auth-server *WORD* with-fallback

Syntax Description

auth-server

Admin authentication with an external server

WORD

Set the auth-server to this server

with-fallback

Enable fallback authentication if the remote authentication server is unavailable

Defaults

None.

Example

```
ruckus(config-admin)# auth-server radius with-fallback
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-admin)# show
Administrator Name/Password:
Name= admin
Password= admin
Authenticate:
Mode= Authenticate with authentication server 'radius'
Fallback= Enabled
ruckus(config-admin)#
```

Configure AD Domain Server Commands

Use the following commands to configure Active Directory Domain server.

ad-domainsvr

To set the AD domain server, use the following command:

ad-domainsvr<DOMAIN> <IP-ADDR> <Service-Device-Name> <Password> <PORT> <Admin DN>

Syntax Description

ad-domainsvr

Active Directory domain server.

<DOMAIN> <IP-ADDR> <Service-Device-Name> <Password> <PORT> <Admin DN>

Configure domain server address details.

Defaults

None.

Example

```
ruckus(config)# ad-domainsvr ruckus.com 10.10.10.1 host1 pass1234 14 admin-dn
The saving conf [adauthsvr] does not exist in current or default database
ruckus(config)#
```

no ad-domainsvr

To delete the AD domain server, use the following command:

no ad-domainsvr

Example

```
ruckus(config)# no ad-domainsvr
ruckus(config)#
```

Configure Access Points Commands

The following commands can be used from within the config-ap context to configure a specific Access Point.

ap

To enter the config-ap context, enter the following command:

ap *MAC*

Syntax Description

ap

Access Point

MAC

MAC address of the access point for configuration

Defaults

None.

Example

```
ruckus(config)# ap 04:4f:aa:0c:b1:00
The AP '04:4f:aa:0c:b1:00' has been loaded. To save the AP, type 'end' or 'exit' .
ruckus(config-ap)#
```

no ap

To delete an AP from the list of approved devices, use the following command:

no ap *MAC*

Syntax Description

no ap

Delete Access Point

MAC

MAC address of the access point

Defaults

None.

Example

```
ruckus(config)# no ap 04:4f:aa:0c:b1:00
The AP '04:4f:aa:0c:b1:00' has been deleted.
ruckus(config)#
```

devname

To set the device name, use the following command:

devname *WORD*

Syntax Description

devname

Device name

WORD

Set the device name to this name

Defaults

None.

Example

```
ruckus(config)# ap 04:4f:aa:0c:b1:00
The AP '04:4f:aa:0c:b1:00' has been loaded. To save the AP, type 'end' or 'exit'.
ruckus(config-ap)# devname 7962
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)# end
The device information has been updated.
Your changes have been saved.
ruckus(config)#
```

no devname

To delete the device's name, use the following command:

no devname

bonjour-gateway

To bind a bonjour gateway policy to this AP, use the following command:

bonjour-gateway *WORD*

Example

```
ruckus(config-ap)# bonjour-gateway bonjour1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

no bonjour-gateway

To unbind a bonjour gateway policy, use the following command:

no bonjour-gateway

Example

```
ruckus(config-ap)# no bonjour-gateway
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

description

To set the device description, use the following command:

description *WORD*

Syntax Description

description

Device description

WORD

Set the device description to this text

Defaults

None.

Example

```
ruckus(config-ap-00:13:92:00:33:1C)# description this-is-the-device-description
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

no description

To delete the device's description, use the following command:

no description

gps

To set the device GPS coordinates, use the following command:

gps *GPS-COORDINATE*

Syntax Description

gps

Set the device GPS coordinates

GPS-COORDINATE

Enter the device's GPS coordinates for the latitude and longitude. Use a comma (,) to separate the latitude and longitude. The first coordinate is for the latitude. The second coordinate is for the longitude. Ex. A,B or -37,38.

Defaults

None.

Example

```
ruckus(config-ap)# gps 37.3,-122
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

no gps

To delete the device's GPS coordinates, use the following command:

no gps

location

To set the device location, use the following command:

location *WORD*

Syntax Description

location

Device location

WORD

Set the device location to this address

Defaults

None.

Example

```
ruckus(config-ap)# location sunnyvale-office
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

no location

To delete the device's location, use the following command:

no location

group

To set the AP group for this AP, use the following command:

group [name *WORD*]|system-default]

Syntax Description

group
: Set the AP group that this AP is a member of

name
: Set the AP to be a member of the named AP group

WORD
: The name of the AP group

system-default
: Set the AP as a member of the system default AP group

Defaults

system-default

Example

```
ruckus(config-ap)# group system-default
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

ip

To set the AP's IPv4 address, use the following command from within the config-ap context:

ip [enable|disable] addr *IP-ADDR NET-MASK* name-server *DNS-ADDR* mode [dhcp|static|keep]

Syntax Description

ip
: Set the AP's IPv4 addressing

enable
: Enable IPv4 addressing

disable
: Disable IPv4 addressing

addr
: Set the AP's IPv4 address

IP-ADDR
: The IPv4 address

NET-MASK
: The IPv4 netmask

name-server
: Set the device's DNS servers. Use a space ( ) to separate primary and secondary DNS servers

DNS-ADDR
: The IP address of the DNS server

mode
Set the device's IP addressing mode (DHCP, static or "keep AP's setting")

dhcp
Set the device's IP address mode to DHCP

static
Set the device's IP address mode to static

keep
Set the device to use its current network settings

Defaults

none

Example

```
ruckus(config-ap)# ip enable mode dhcp
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

ipv6

To set the AP's IPv6 address, use the following command from within the config-ap context:

ipv6 [**enable**] **addr** *IPv6-ADDR IPv6-PREFIX-LENGTH* **name-server** *DNS-ADDR* **mode** [**auto** | **manual** |**keep**]

Syntax Description

ipv6
Set the AP's IPv6 addressing

enable
Enable IPv6 addressing

addr
Set the AP's IPv6 address

IPv6-ADDR
The IPv6 address

IPv6-PREFIX-LENGTH
The IPv6 prefix length. Use a space ( ) to separate the IPv6 address and prefix length

name-server
Set the device's DNS servers. Use a space ( ) to separate primary and secondary DNS servers

DNS-ADDR [*DNS-ADDR*]
The IP address of the DNS server

mode
Set the device's IP addressing mode (auto, manual or "keep AP's setting")

auto
Set the device's IPv6 address mode to auto

manual

Set the device's IPv6 address mode to manual

keep

Set the device to use its current network settings

Defaults

none

Example

```
ruckus(config-ap)# ipv6 enable mode auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

no ipv6

To disable the AP's IPv6 mode, use the following command:

no ipv6

usb-software

To set the AP USB software package vendor ID (VID) and product ID (PID), and version, use the following command:

usb-software *VID-PID-VERSION*

no usb-software

To delete a USB software package from the list of USB software packages, use the following command:

no usb-software

no usb-software-override

To disable the override of the AP USB software package, use the following command:

no usb-software-override

status-leds

To enable or disable the AP's status LEDs, use the following command:

status-leds [**enable** | **disable**]

Defaults

Enabled.

Syntax Description

status-leds

Configure status LEDs

enable

Override group config, enable status LEDs

disable

Override group config, disable status LEDs

Example

```
ruckus(config-ap)# status-leds disable
ruckus(config-ap)#
```

no status-leds-override

To disable override of status LEDs for this AP, use the following command:

no status-leds-override

status-lacp

To enable or disable LACP, use the following command:

status-lacp [**enable** | **disable**]

Defaults

Disabled.

Example

```
ruckus(config-ap)# status-lacp enable
ruckus(config-ap)#
```

no status-lacp-override

To disable override of AP group LACP settings, use the following command:

no status-lacp-override

Example

```
ruckus(config-ap)# no status-lacp-override
ruckus(config-ap)#
```

usb-port

To disable the override the group configuration and enable/disable the USB port for this AP, use the following command:

usb-port [**enable** | **disable**]

no usb-port-override

To disable the override of the USB port for the specified AP model, use the following command:

no usb-port-override

poe-out

To enable or disable the AP's PoE Out port, use the following command:

poe-out [**enable** | **disable**]

Defaults

Disabled.

Syntax Description

poe-out
: Configure PoE Out port

enable
: Override group config, enable PoE Out port

disable
: Override group config, disable PoE Out port

Example

```
ruckus(config-ap)# poe-out enable
ruckus(config-ap)#
```

no poe-out-override

To disable override of the PoE out port settings, use the following command:

no poe-out-override

external-antenna

To configure the AP's external antenna settings, use the following command:

external-antenna [**2.4G** | **5G**] [**enable** | **disable**] [**gain** *NUMBER*] **cable-loss** *NUMBER* [**2-antennas** | **3-antennas**]

Syntax Description

2.4G
: Configure external 2.4GHz antenna

5G
: Configure external 5GHz antenna

enable|disable
Enable/disable external antenna

gain
Set external antenna gain for 2.4/5GHz radio

cable-loss *NUMBER*
Enter the external antenna loss (0-90 dB)

2-antennas
Select two external antennas for the specified radio

3-antennas
Select three external antennas for the specified radio

Defaults

Varies by AP model.

no external-antenna-override

To disable the external antenna override settings, use the following command:

no external-antenna-override

spectra-analysis 2.4GHz

To enable or disable the spectrum analysis feature for this radio, use the following command:

spectra-analysis 2.4GHz [**enable** | **disable**]

spectra-analysis 5GHz

To enable or disable the spectrum analysis feature for this radio, use the following command:

spectra-analysis 5GHz [**enable** | **disable**]

internal-heater

To enable or disable the AP's internal heater, use the following command:

internal-heater [**enable** | **disable**]

Defaults

Disabled.

Syntax Description

internal-heater
Configure internal heater

enable
Override group config, enable internal heater

disable
Override group config, disable internal heater

Example

```
ruckus(config-ap)# internal-heater enable
ruckus(config-ap)#
```

no internal-heater-override

To disable override of the internal heater for this AP, use the following command:

no internal-heater-override

cband-channels

To enable or disable the 5.8 GHz C-band channels, use the following command:

cband-channels [**enable** | **disable**]

Defaults

Disabled.

Syntax Description

cband-channels
Configure C-band channels

enable
Override group config, enable C-band channels

disable
Override group config, disable C-band channels

Example

```
ruckus(config-ap)# cband-channels enable
ruckus(config-ap)#
```

no cband-channels-override

To disable override of the 5.8 GHz channels, use the following command:

no cband-channels-override

cband-license

To override the group configuration and enable or disable 5.8 GHz radio full power for this device, use the following command:

cband-license [**enable** | **disable**]

Defaults

Disabled.

Example

```
ruckus(config-ap)# cband-license enable
Model r610 doesn't support to configure cband-license.
ruckus(config-ap)#
```

no cband-license-override

To disable the override of the 5.8 GHz Channels License for this AP, use the following command:

no cband-license-override

Defaults

Disabled.

Example

```
ruckus(config-ap)# no cband-license override
Model r610 doesn't support to configure cband-license.
ruckus(config-ap)#
```

ipmode

To set the AP's IP mode, use the following command:

ipmode *WORD*

Defaults

Dual-stack IPv4/IPv6 mode

Syntax Description

ipmode
: Configure IP addressing mode

ipv4
: Set to IPv4 only mode

ipv6
: Set to IPv6 only mode

dual
: Set to dual-stack IPv4/IPv6 mode

Example

```
ruckus(config-ap)# ipmode dual
ruckus(config-ap)#
```

no ipmode-override

To disable override of the IP mode, use the following command:

no ipmode-override

venue-name

To set the venue name of the AP, use the following command:

venue-name [**language**] *WORD*

Syntax Description

venue-name
: Set the venue name for the AP

[**language**]
: Set the language of the venue name. Valid languages are: English, Chinese, Czech, Danish, Dutch, French, German, Japanese, Spanish, Swedish, Turkish)

WORD
: Set the venue name to the name specified

Example

```
ruckus(config-ap)# venue-name english venue1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

no venue-name

To remove a venue name entry, use the following command:

no venue-name [**language**]

Example

```
ruckus(config-ap)# no venue-name english
The entry 'English' has been removed. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

lldp

To enable, disable or configure the AP's Link Layer Discover Protocol settings, use the following lldp commands from within the config-ap context.

Syntax Description

lldp
Configure LLDP settings.

enable
Enable LLDP with current settings.

disable
Disable LLDP with current settings.

interval *NUMBER*
Set packet transmit interval in second(s).

holdtime *NUMBER*
Set amount of time receiving device should retain the information.

ifname eth *NUMBER*
Enter the AP port number.

mgmt enable
Enable LLDP management IP address of the AP.

mgmt disable
Disable LLDP management IP address of the AP.

Example

```
ruckus(config-ap)# lldp enable
ruckus(config-ap)#
```

no lldp-override

To disable the AP's LLDP override settings (use parent settings), use the following command:

no lldp-override

Example

```
ruckus(config-ap)# no lldp-override
ruckus(config-ap)#
```

power-mode

To set the PoE mode of the AP, use the following command:

power-mode <*WORD*>

Syntax Description

power-mode
Set the PoE power mode.

auto
Set the PoE power mode to auto.

802.3af

Set the PoE power mode to 802.3af.

802.3at

Set the PoE power mode to 802.3at.

802.3bt5

Set the PoE power mode to 802.3bt5.

802.3bt6

Set the PoE power mode to 802.3bt6.

802.3bt7

Set the PoE power mode to 802.3bt7.

Example

```
ruckus(config-ap)# power-mode 802.3af
ruckus(config-ap)#
```

no power-mode-override

To disable the override of the PoE mode, use the following command:

no power-mode-override

802.3af-txchain

To set the number of 2.4 GHz radio transmit chains in 802.3af PoE power mode, use the following command:

802.3af-txchain *WORD*

Syntax Description

802.3af-txchain

Set the number of 2.4 GHz radio transmit chains in 802.3af power mode.

1

Set the number of tx chains to 1.

2

Set the number of tx chains to 2.

4

Set the number of tx chains to 4.

Example

```
ruckus(config-ap)# 802.3af-txchain 2
ruckus(config-ap)#
```

no 802.3af-txchain-override

To disable the override of the 2.4GHz radio transmit chains in 802.3af PoE mode, use the following command:

no 802.3af-txchain-override

Example

```
ruckus(config-ap)# no 802.3af-txchain-override
ruckus(config-ap)#
```

Radio 2.4/5 GHz Commands

Use the radio 2.4 or radio 5 commands to configure the 2.4/5 GHz radio settings independently.

radio

Use the radio command from within the config-ap context to configure the 2.4GHz or 5GHz radios independently.

radio [**2.4** | **5**] *arguments*

Syntax Description

2.4
Configure the 2.4 GHz radio

5
Configure the 5 GHz radio

channelization [**auto** | *NUMBER*]
Set channel width to 20 MHz, 40 MHz or Auto

channel [**auto** | *NUMBER*]
Set channel to Auto or manually set channel

tx-power [**auto** | **full** | **min** | **num** *1-10*]
Set transmit power to auto, full, min, or a number (-1dB~-10dB)

admission-control *VALUE*
Set the radio to use the specified call admission control airtime usage limit (%)

channel-range *NUMBER-LIST*
Set the allowed list of channels for the specified radio

wlan-group *WORD*
Set the AP radio as a member of a WLAN group

wlan-service [**enable** | **disable**]
Enable WLAN service on this radio

wlan-service-override
Enable the override of the WLAN service settings for this radio

extant-gain *NUMBER*
Set external antenna gain (on APs that support external antennas) (dBi)

Defaults

channelization: Auto

channel: Auto

wlan-group: Default

wlan-service: Enabled

wlan-service-override: Disabled

tx-power: Auto

admission-control: Disabled

spectralink-compatibility: Disabled

Example

```
ruckus(config-ap)# radio 2.4 channelization auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)# radio 2.4 channel auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)# radio 2.4 wlan-group Default
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)# radio 2.4 wlan-service
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)# radio 2.4 tx-power auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)# end
The device information has been updated.
Your changes have been saved.
ruckus(config)#
```

no radio

Use the no radio 2.4 or no radio 5 commands from within the config-ap context to disable AP group overrides for the 2.4GHz or 5GHz radio settings.

no radio [**2.4** | **5**] *arguments*

Syntax Description

no radio
: Disable override of 2.4/5GHz radio settings

2.4
: Disable 2.4GHz radio override settings

5
: Disable 5GHz radio override settings

wlan-service
: Disable override of WLAN service settings

channel-range-override
: Disables override of channel range settings

channel-override
: Disables override of channel settings

channelization-override
: Disables override of 5GHz channelization settings

tx-power-override
: Disables override of Tx power

wlan-group-override
: Disables override of WLAN group settings

admission-control
: Disables call admission control on the radio

admission-control-override

Disables override of call admission control settings

wlan-service

Disables WLAN service for the radio

wlan-service-override

Disables the override of the WLAN service settings for this radio.

channel-range-override

Disables override of channel range settings

Example

```
ruckus(config-ap)# no radio 2.4 tx-power-override
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

show

To display the AP's current configuration settings, use the following command:

show

Example

```
ruckus(config)# ap c0:8a:de:21:a8:10
The AP 'c0:8a:de:21:a8:10' has been loaded. To save the AP, type 'end' or 'exit'.
ruckus(config-ap)# show
AP:
  ID:
    1:
      MAC Address= c0:8a:de:21:a8:10
      Model= zf7982
      Approved= Yes
      Device Name= RuckusAP
      Description=
      Location=
      GPS=
      CERT = Complex
      Bonjour-policy=
      Bonjour-fencing= Disabled
      Group Name= System Default
      Channel Range:
        A/N= 36,40,44,48,149,153,157,161 (Disallowed= )
        B/G/N= 1,2,3,4,5,6,7,8,9,10,11 (Disallowed= )
      Radio a/n:
        Channelization= Auto
        Channel= Auto
        WLAN Services enabled= Yes
        Tx. Power= Auto
        WLAN Group Name= Default
        Call Admission Control= OFF
        Protection Mode= Auto
      Radio b/g/n:
        Channelization= Auto
        Channel= Auto
        WLAN Services enabled= Yes
        Tx. Power= Auto
        WLAN Group Name= Default
        Call Admission Control= OFF
        Protection Mode= 2
      Override global ap-model port configuration= No
      Network Setting:
```

```
          Protocol mode= Use Parent Setting
          Device IP Settings= Keep AP's Setting
          IP Type= DHCP
          IP Address= 10.10.3.51
          Netmask= 255.255.0.0
          Gateway= 10.10.0.1
          Primary DNS Server= 10.10.0.1
          Secondary DNS Server=

          Device IPv6 Settings= Keep AP's Setting
          IPv6 Type= Auto Configuration
          IPv6 Address= fc00::1
          IPv6 Prefix Length= 7
          IPv6 Gateway=
          IPv6 Primary DNS Server=
          IPv6 Secondary DNS Server=
        Mesh:
          Status= Disabled
        LLDP:
          Status = Use Parent Setting
        Venue Name List:
        LAN Port:
          0:
            Interface= eth0
            Dot1x= None
            LogicalLink= Up
            PhysicalLink= Up 100Mbps full
            Label= 10/100/1000 PoE LAN1
          1:
            Interface= eth1
            Dot1x= None
            LogicalLink= Down
            PhysicalLink= Down
            Label= 10/100/1000 LAN2

ruckus(config-ap)#
```

Mesh Commands

Use the following commands to configure the AP's mesh-related settings.

mesh mode

Use the mesh mode command from within the config-ap context to configure the AP's mesh mode settings.

mesh mode [**auto** | **root-ap** | **mesh-ap** | **disable**]

Syntax Description

mesh mode
Configure the AP's mesh mode

auto
Set mesh mode to Auto

root-ap
Configure AP as a Root AP

mesh-ap
Configure AP as a Mesh AP

disable
Disable mesh

Defaults

Auto.

Example

```
ruckus(config-ap)# mesh mode auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

mesh uplink-selection

Use the mesh uplink-selection command from within the config-ap context to configure the AP's mesh uplink selection settings.

mesh uplink-selection [**auto** | **manual**] *add-mac* | *del-mac MAC*

Syntax Description

mesh uplink-selection
Configure the AP's mesh uplink selection mode

auto
Set mesh uplink selection to Auto

manual
Set mesh uplink selection to manual

add-mac
Add a manual uplink selection AP

del-mac
Delete a manual uplink selection AP

MAC
The MAC address of the uplink AP

Defaults

Auto.

Examples

```
ruckus(config-ap)# mesh uplink-selection manual add-mac 00:24:82:3f:14:60
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#

ruckus(config-ap)# mesh uplink-selection auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

maxhops

To set the maximum mesh hops for the AP (0-3), use the following command:

maxhops *<NUMBER>*

Example

```
ruckus(config-ap)# maxhops 3
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

AP Port Setting Commands

To override AP group configuration settings and configure the AP's Ethernet ports individually, you must first enter the **config-ap-model** context from within the **config-ap** context.

port-setting

Use the following command to enter the config-ap-model context and override AP group settings to configure AP ports individually:

port-setting

Syntax Description

port-setting
Configure AP port settings

lan *NUMBER {Arguments}*
Configure the AP LAN port

no lan *NUMBER*
Disable the AP LAN port

uplink *WORD*
Set the AP port to use the specified type (trunk, access or general)

untag *NUMBER*
Set the AP port to use the specified VLAN ID(1-4094)

member *NUMBER*
Set the AP port to use the specified members(1-4094)

opt82 [**enabled** | **disabled**]
Enable the AP port DHCP Option 82 settings

tunnel [**enabled** | **disabled**]
Enable the AP port tunnel settings

guest-vlan *NUMBER*
Set the AP port to use the specified guest VLAN ID(1-4094)

dvlan [**enabled** | **disabled**]
Enable the AP port dynamic VLAN settings

no dot1x *authsvr acctsvr mac-auth-bypass*
Disable authentication server, accounting server, or MAC auth bypass for the AP's 802.1X settings

dot1x *authsvr acctsvr mac-auth-bypass*
Enable authentication server, accounting server, or MAC auth bypass for the AP's 802.1X settings

authsvr *WORD*
Enter the RADIUS server name

acctsvr *WORD*
Enter the RADIUS accounting server name

mac-auth-bypass
Enable MAC authentication bypass for the 802.1X-enabled port

dot1x supplicant [**username** | **password**] *WORD*
Set the username/password for AP 802.1X supplicant

dot1x supplicant mac
Set the username and password to use AP MAC address for AP 802.1X supplicant

Defaults

Enable LAN: Yes

LAN Type: trunk

Untag ID: 1

Members: 1-4094

Guest VLAN: Disabled

Dynamic VLAN: Disabled

802.1X: disabled

DHCP opt82: Disabled

Tunnel= Disabled

MLD Snooping: Disabled

IGMP Snooping: Enabled

Example

```
ruckus(config-ap)# port-setting
ruckus(config-ap-model)# lan 1 uplink trunk
ruckus(config-ap-model)# show
PORTS:
    LAN ID:
          1:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled
          2:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled

ruckus(config-ap-model)#
```

abort

To exit the port-setting context without saving changes, use the abort command.

abort

end

To save changes, and then exit the port-setting context, use the following command:

end

exit

To save changes, and then exit the config-ap-model context, use the following command:

exit

quit

To exit the config-ap-model context without saving changes, use the quit command.

quit

show

To display the current port settings, use the following command:

show

Example

```
ruckus(config)# ap 04:4f:ab:0c:b1:00
ruckus(config-ap)# port-setting
ruckus(config-ap-model)# show
PORTS:
    LAN ID:
          1:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled
          2:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled
ruckus(config-ap-model)#
```

lan

To enable the LAN port, use the following command:

lan *NUMBER*

Syntax Description

lan
Enable the LAN port

NUMBER
Specify the LAN port to enable

uplink *WORD*
Sets the AP port to use the specified type(trunk,access or general).

untag *NUMBER*
Sets the AP port to use the specified VLAN ID(1-4094) or none.

member *NUMBER*
Sets the AP port to use the specified members(1-4094).

opt82
Sets the AP port DHCP Option 82.

tunnel
Sets the AP port tunnel.

guest-vlan *NUMBER*
Sets the AP port to use the specified guest VLAN ID(1-4094).

dvlan
Sets the AP port dynamic VLAN.

dot1x
Sets the AP port 802.1X.

Defaults

Enable LAN = Yes

LAN Type= trunk

Untag ID= 1

Members= 1-4094

Guest VLAN=

Enable Dynamic VLAN= Disabled

802.1X= disabled

DHCP opt82= Disabled

Tunnel= Disabled

MLD Snooping= Disabled

IGMP Snooping= Enabled

Example

```
ruckus(config-ap-model)# lan 1
ruckus(config-ap-model)#
```

no lan

To disable the LAN port, use the following command:

no lan *NUMBER*

Syntax Description

no lan
: Disable the LAN port

NUMBER
: Specify the LAN port to disable

Defaults

None.

Example

```
ruckus(config-ap-model)# no lan 1
ruckus(config-ap-model)#
```

lan uplink

To sets the AP port type (Trunk, Access or General), use the following command:

lan *NUMBER* **uplink** *WORD*

Syntax Description

lan uplink
: Set the LAN port type

NUMBER
: Specify the LAN port to configure

uplink
: Set the port type to the specified type

WORD
: LAN port type (Trunk port, Access port, General port)

Defaults

For all APs other than 7025/7055: Trunk

For 7025/7055 LAN 5: Trunk

For 7025/7055 LAN 1-LAN 4: Access

Example

```
ruckus(config-ap-model)# lan 1 uplink access
ruckus(config-ap-model)#
```

lan untag

To set the LAN port untag VLAN ID (native VLAN, for Trunk ports), use the following command:

lan *NUMBER* **untag** *NUMBER*

Syntax Description

lan untag
: Set the LAN port untag VLAN ID

NUMBER
: Specify the LAN port to configure

NUMBER
: Set the untag VLAN ID (1~4094)

Defaults

1

Example

```
ruckus(config-ap-model)# lan 1 untag 1
ruckus(config-ap-model)#
```

lan member

To set the LAN port VLAN membership (only General ports have configurable membership; Trunk ports are members of all VLANs, and Access port membership must be the same as the Untag VLAN), use the following command:

lan *NUMBER* **member** *NUMBER*

Syntax Description

lan member
: Set the LAN port VLAN membership

NUMBER
: Specify the LAN port to configure

NUMBER
: Set the VLAN membership (1~4094, range separated by hyphen, multiple VLANs separated by commas)

Defaults

1

Example

```
ruckus(config-ap-model)# lan 2 member 1-10,100,200
ruckus(config-ap-model)# show
PORTS:
    LAN ID:
          1:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled
          2:
            Enable LAN = Yes
            LAN Type= general
            Untag ID= 1
            Members= 1-10,100,200
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled

ruckus(config-ap-model)#
```

lan opt82

To enable or disable DHCP option 82 for a LAN port, use the following command:

lan *NUMBER* **opt82** [**enabled** | **disabled**]

Syntax Description

opt82
: Enable or disable DHCP option 82

enabled
: Enable option 82

disabled
: Disable option 82

Defaults

Disabled

Example

```
ruckus(config-ap-model)# lan 1 opt82 enable
ruckus(config-ap-model)#
```

lan tunnel

To enable or disable Ethernet port tunnel mode for the port, use the following command:

lan *NUMBER* **tunnel** [**enabled** | **disabled**]

Syntax Description

tunnel
: Enable or disable port tunnel mode

enabled
: Enable tunnel mode

disabled
: Disable tunnel mode

Defaults

Disabled

Example

```
ruckus(config-ap-model)# lan 1 tunnel enable
ruckus(config-ap-model)# show
PORTS:
    LAN ID:
          1:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Enabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled
          2:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
            802.1X= disabled
            DHCP opt82= Disabled
            Tunnel= Disabled
            MLD Snooping= Disabled
            IGMP Snooping= Enabled

ruckus(config-ap-model)#
```

lan guest-vlan

To set the AP port to use the specified Guest VLAN ID, use the following command:

lan *NUMBER* **guest-vlan** *NUMBER*

lan dvlan enabled

To enable dynamic VLAN for the port, use the following command:

lan *NUMBER* **dvlan enabled**

lan dvlan disabled

To disable dynamic VLAN for the port, use the following command:

lan *NUMBER* **dvlan disabled**

lan dot1x

To configure 802.1X settings for a LAN port, use the following command:

lan *NUMBER* **dot1x** [**disable** |**supplicant** | **auth-port-based** | **auth-mac-based**]

Syntax Description

lan dot1x
: Configure 802.1X settings for this port

NUMBER
: LAN port number to configure

disabled
: Disable 802.1X

supplicant
: Configure this LAN port as an 802.1X supplicant

supplicant username *WORD*
: Set the username for AP 802.1X supplicant

supplicant password *WORD*
: Set the password for AP 802.1X supplicant

supplicant mac
: Set the username and password to use AP MAC address for AP 802.1X supplicant

auth-port-based
: Configure this LAN port as an 802.1X authenticator (port-based)

auth-mac-based
: Configure this LAN port as an 802.1X authenticator (MAC-based)

Defaults

Disabled

Example

```
ruckus(config-ap-model)# lan 1 dot1x supplicant
ruckus(config-ap-model)#
```

dot1x authsvr

To configure the 802.1X authentication server for the AP, use the following command:

dot1x authsvr *WORD*

Syntax Description

dot1x authsvr

Configure 802.1X authentication server

WORD

Name of AAA server

Defaults

None

Example

```
ruckus(config-ap-model)# dot1x authsvr radius
ruckus(config-ap-model)#
```

dot1x acctsvr

To configure the 802.1X accounting server for the AP, use the following command:

dot1x acctsvr *WORD*

Syntax Description

dot1x acctsvr

Configure 802.1X accounting server

WORD

Name of AAA server

Defaults

None

Example

```
ruckus(config-ap-model)# dot1x acctsvr radius-acct
ruckus(config-ap-model)#
```

dot1x mac-auth-bypass

To configure 802.1X MAC authentication bypass, use the following command:

dot1x mac-auth-bypass

Syntax Description

dot1x mac-auth-bypass
Enable 802.1X MAC authentication bypass

Defaults

Disabled

Example

```
ruckus(config-ap-model)# dot1x mac-auth-bypass
ruckus(config-ap-model)#
```

dot1x supplicant username

To configure 802.1X supplicant user name, use the following command:

dot1x supplicant username *WORD*

Syntax Description

dot1x supplicant username
Configure 802.1X supplicant user name

WORD
Set the 802.1X supplicant user name

Defaults

None

Example

```
ruckus(config-ap-model)# dot1x supplicant username johndoe
ruckus(config-ap-model)#
```

dot1x supplicant password

To configure 802.1X supplicant password, use the following command:

dot1x supplicant password *WORD*

Syntax Description

dot1x supplicant password
Configure 802.1X supplicant password

WORD
Set the 802.1X supplicant password

Defaults

None

Example

```
ruckus(config-ap-model)# dot1x supplicant password test123
ruckus(config-ap-model)#
```

dot1x supplicant mac

To set the 802.1X supplicant user name and password as the AP's MAC address, use the following command:

dot1x supplicant mac

Syntax Description

dot1x supplicant mac

Set the supplicant user name and password as the AP's MAC address

Defaults

None

Example

```
ruckus(config-ap-model)# dot1x supplicant mac
ruckus(config-ap-model)#
```

Configure AP Policy Commands

Use the **ap-policy** commands to configure global AP policies such as automatic AP approval, limited ZD discovery, management VLAN, load balancing across APs and max clients per AP radio. To run these commands, you must first enter the config-ap-policy context.

ap-policy

To enter the ap-policy context and configure global AP policies, enter the following command:

ap-policy

Syntax Description

ap-policy

Enter config-ap-policy context and configure global AP policies

Defaults

None.

Example

```
ruckus(config)# ap-policy
ruckus(config-ap-policy)#
```

show

To display the current device policy, use the following command:

show

Example

```
ruckus(config-ap-policy)# show
  Automatically approve all join requests from APs= Enabled
  Limited ZD Discovery:
    Status= Disabled
  Management VLAN:
    Status= Keep AP's setting
  Auto Recovery= 30 minutes
ruckus(config-ap-policy)#
```

ap-management-vlan

To enable the AP management VLAN and set to either “keep AP’s setting” or to the specified VLAN ID, use the following command:

ap-management-vlan [**keeping**] *NUMBER*

Syntax Description

ap-management-vlan

Enable and configure the global AP management VLAN

keeping
Sets management VLAN to “Keep AP’s setting”

NUMBER
Set management VLAN to the number specified

Defaults

None.

Example

```
ruckus(config-ap-policy)# ap-management-vlan keeping
The command was executed successfully.
ruckus(config-ap-policy)#
```

no ap-management-vlan

To disable the AP management VLAN, use the following command:

no ap-management-vlan

Syntax Description

no ap-management-vlan
Disable the AP management VLAN

Defaults

None.

ruckus(config-ap-policy)# no ap-management-vlan

Example

```
The command was executed successfully.
ruckus(config-ap-policy)#
```

ap-auto-approve

To enable the automatic approval of join requests from devices, use the following command:

ap-auto-approve

Syntax Description

ap-auto-approve
Enable the automatic approval of join requests from devices

Defaults

None.

Example

```
ruckus(config-ap-policy)# ap-auto-approve
The AP automatically approve policy has been updated.
```

no ap-auto-approve

To disable the automatic approval of join requests from devices, use the following command:

no ap-auto-approve

Syntax Description

no ap-auto-approve
: Disable the automatic approval of join requests from devices

Defaults

None.

Example

```
ruckus(config-ap-policy)# no ap-auto-approve
The AP automatically approve policy has been updated.
ruckus(config-ap-policy)#
```

limited-zd-discovery

To configure devices to connect to a specific ZoneDirector and to set the primary and secondary ZoneDirector's IP addresses, use the following command:

limited-zd-discovery zd-addr | **zd-ip** *PRIMARY SECONDARY*

Syntax Description

limited-zd-discovery
: Configure devices to connect to a specific ZoneDirector

zd-addr
: Set ZoneDirector's IP/IPv6/FQDN address

zd-ip
: Set ZoneDirector's IP/IPv6 address

PRIMARY
: Address of primary ZD

SECONDARY
: Address of secondary ZD

Defaults

Disabled.

Example

```
ruckus(config-ap-policy)# limited-zd-discovery zd-addr 192.168.11.100 192.168.11.200
The Limited ZoneDirector discovery function has been updated.
ruckus(config-ap-policy)# show
Automatically approve all join requests from APs= Enabled
Limited ZD Discovery:
Status= Enabled
Primary ZoneDirector ADDR= 192.168.11.100
SecondaryZoneDirector ADDR= 192.168.11.200
Prefer Primary ZoneDirector = false
Management VLAN:
Status= Disabled
Balances the number of clients across adjacent APs= Disabled
Max. clients for 11BG radio= 100
Max. clients for 11N radio= 100
LWAPP message MTU= 1450
ruckus(config-ap-policy)#
```

no limited-zd-discovery

To disable limited ZD discovery, use the following command:

no limited-zd-discovery

Syntax Description

no limited-zd-discovery

Disable limited ZD discovery

Defaults

Disabled.

Example

```
ruckus(config-ap-policy)# no limited-zd-discovery
The Limited ZoneDirector discovery function has been updated.
ruckus(config-ap-policy)#
```

limited-zd-discovery prefer-primary-zd

To force the AP to prefer the primary ZoneDirector when connected (and periodically attempt to reconnect to the primary ZD when disconnected from it), use the following command:

limited-zd-discovery prefer-primary-zd

Example

```
ruckus(config-ap-policy)# limited-zd-discovery prefer-primary-zd
The Limited ZoneDirector discovery function has been updated.
ruckus(config-ap-policy)#
```

no limited-zd-discovery prefer-primary-zd

To disable the Limited ZD Discovery “prefer primary ZoneDirector” feature, use the following command:

no limited-zd-discovery prefer-primary-zd

limited-zd-discovery keep-ap-setting

To disallow ZoneDirector modifying AP's original primary/secondary ZD settings, use the following command:

limited-zd-discovery keep-ap-setting

Example

```
ruckus(config-ap-policy)# limited-zd-discovery keep-ap-setting
The Limited ZoneDirector discovery function has been updated.
ruckus(config-ap-policy)#
```

no limited-zd-discovery keep-ap-setting

To disable the Limited ZD Discovery "keep AP's setting" feature, use the following command:

no limited-zd-discovery keep-ap-setting

auto-recovery

To set the value of auto recovery time (minutes) for AP reboot if AP can't connect to ZoneDirector, use the following command:

auto-recovery *NUMBER*

Defaults

Enabled

30 minutes

Example

```
ruckus (config-ap-policy)# auto-recovery 30
The AP auto recovery policy has been updated.
ruckus(config-ap-policy)#
```

no auto-recovery

To disable AP auto recovery, use the following command:

no auto-recovery

vlan-qos

To configure the traffic class [**voice** | **video** | **data** | **background**] to the specific VLAN ID at the specific interface, use the following command:

vlan-qos *VID Traffic ClassInterface Name*

Syntax Description

vlan-qos
Configure VLAN QOS settings

VID
VLAN ID

Traffic Class
Specify traffic classification [**voice** | **video** | **data** | **background**]

Interface Name
Specify interface name

Defaults

Disabled

Example

```
ruckus(config-ap-policy)# vlan-qos 10 voice eth0
The VLAN QoS function has been updated.
ruckus(config-ap-policy)#
```

no vlan-qos

To disable VLAN traffic class QoS for the specific interface or all VLANs, use the following command:

no vlan-qos all | *VID Interface Name*

Syntax Description

no vlan-qos
Disable VLAN's QoS settings

VID
VLAN ID

Interface Name
Specify interface name

Defaults

Disabled

Example

```
ruckus(config-ap-policy)# no vlan-qos all eth0
The VLAN QoS function has been updated.
ruckus(config-ap-policy)#
```

timeout

To configure recovering of the APs' original Primary/Secondary ZD address if the AP can't find the desired Primary/Secondary ZD after timeout(minutes), use the following command:

timeout *NUMBER*

Syntax Description

timeout

Enter the timeout value (minutes) for recovering APs' original primary/secondary ZD IP.

NUMBER

Timeout value in minutes.

Example

```
ruckus(config-ap-policy-move-ap)# timeout 60
Your changes have been saved.
ruckus(config-ap-policy-move-ap)#
```

no timeout

To disable the timeout function for moving APs, use the following command:

no timeout

import-aplist

To import an AP list from backup files on a TFTP server, use the following command:

import-aplist *IP-ADDR FILE-NAME*

exit

Saves changes, and then exits the config-ap-policy-move-ap context.

abort

Exits the config-ap-policy-move-ap context without saving changes.

quit

Exits the config-ap-policy-move-ap context without saving changes.

Configure AP Group Commands

This section describes the commands that you can use to configure AP groups on the controller. The following commands can be executed from within the **config-apgrp** context. To show a list of commands available from within the context, type **help** or **?**.

ap-group

To create a new AP group or configure an existing AP group and enter the config-apgrp context, enter the following command:

ap-group *WORD*

Syntax Description

ap-group
: Configure an AP group

WORD
: Name of the AP group

Defaults

"System Default"

Example

```
ruckus(config)# ap-group "System Default"
The AP group entry 'System Default' has been loaded. To save the AP group, type 'end' or 'exit'.
ruckus(config-apgrp)#
```

no ap-group

To delete an AP group from the list, enter the following command:

no ap-group *WORD*

Syntax Description

no ap-group
: Delete an AP group

WORD
: Name of the AP group

Defaults

None

Example

```
ruckus(config)# no ap-group apgrp2
The AP Group 'apgrp2' has been removed.
ruckus(config)#
```

exit

Saves changes, and then exits the config-ap-group context.

abort

Exits the config-ap-group context without saving changes.

quit

Exits the config-ap-group context without saving changes.

show

To display current AP group configuration settings, use the following command from within the config-ap-group context:

show

Example

```
ruckus(config)# ap-group apgroup1
The AP group 'apgroup1' has been created. To save the AP group, type 'end' or 'exit'.
ruckus(config-apgrp)# show
APGROUP:
       ID:
         :
           Name= apgroup1
           Description=
           Radio 11bgn:
             Channelization= Auto
             Channel= Auto
             Enable auto channel selection which select from 1,6,11= Yes
             Tx. Power= Auto
             11N only Mode= Auto
             WLAN Group= Default
             Call Admission Control= OFF
           Radio 11an:
             Channelization= Auto
             Channel= Auto
             Tx. Power= Auto
             11N only Mode= Auto
             WLAN Group= Default
             Call Admission Control= OFF
           Members:
ruckus(config-apgrp)#
exit
```

description

To set the AP group description, use the following command:

description *WORD*

no description

To delete the AP group description, use the following command:

no description

Configure Location Based Service Commands

Use the following commands to to create and configure location services for an AP group. Use the location-services command to enter the **config-location-services** context from within the **config** context.

location-services

To create and begin configuring location services for this AP group, use the following command:

location-services *WORD*

Syntax Description

help
Set the IP addressing mode

history
IPv4, IPv6 or dual

abort
Exits the config-location-services context without saving changes.

end
Saves changes, and then exits the config-location-services context.

exit
Saves changes, and then exits the config-location-services context.

quit
Exits the config-location-services context without saving changes.

fqdn *WORD*
Sets the location server FQDN.

port *PORT-NUM*
Sets the location server port.

password *WORD*
Sets the location server preshared key.

show
Displays configured location services for all venues.

Example

```
ruckus(config)# location-services locationservice1
The location venue 'locationservice1' has been created. To save it, type 'end' or 'exit'.
ruckus(config-location-services)# fqdn example1.ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-location-services)# port 8883
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-location-services)# password password
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-location-services)# end
The location venue 'locationservice1' has been updated and saved.
Your changes have been saved.
ruckus(config)#
```

no location-services

To disable location-based service on this AP group, use the following command:

no location-services *WORD*

Example

```
ruckus(config)# no location-service locationservice1
The location venue 'locationservice1' has been deleted.
ruckus(config)#
```

ipmode

To set the IP addressing mode of the AP group, use the following command:

ipmode *WORD*

Syntax Description

ipmode
: Set the IP addressing mode

WORD
: IPv4, IPv6 or dual

Example

```
ruckus(config-apgrp)# ipmode dual
ruckus(config-apgrp)#
```

no ipmode-override

To disable the override of IP mode, use the following command:

no ipmode-override

channelflyoff

The ChannelFly override setting allows APs to disable ChannelFly if the AP's uptime is higher than the specified value (in minutes). To enable the ChannelFly override feature for the AP group, use the following command:

Defaults

Disabled

30 minutes

Example

```
ruckus(config-apgrp)# channelflyoff 30
ruckus(config-apgrp)# show
APGROUP:
       ID:
         :
           Name= apgroup2
```

```
            Description=
            Channel Range:
              B/G/N= 1,2,3,4,5,6,7,8,9,10,11 (Disallowed= )
              A/N Indoor= 36,40,44,48,149,153,157,161 (Disallowed= )
              A/N Outdoor= 36,40,44,48,149,153,157,161 (Disallowed= )
            Radio 11bgn:
              Channelization= Auto
              Channel= Auto
              Tx. Power= Auto
              11N only Mode= Auto
              WLAN Group= Default
              Call Admission Control= OFF
              SpectraLink Compatibility= Disabled
            Radio 11an:
              Channelization= Auto
              Indoor Channel= Auto
              Outdoor Channel= Auto
              Tx. Power= Auto
              11N only Mode= Auto
              WLAN Group= Default
              Call Admission Control= OFF
              SpectraLink Compatibility= Disabled
            Network Setting:
              Protocol mode= Use Parent Setting
            Turn off channfly setting: enabled
              if AP's uptime is more than 30 minutes will turn off AP's ChannelFly
            Members:

ruckus(config-apgrp)#
```

no channelflyoff

To disable the ChannelFly off feature for the AP group, use the following command:

no channelflyoff

no channelflyoff-override

To disable the override of ChannelFly settings (use parent settings), use the following command:

no channelflyoff-override

Example

```
ruckus(config-apgrp)# no channelflyoff-override
ruckus(config-apgrp)# show
APGROUP:
       ID:
         :
            Name= apgroup2
            Description=
            Channel Range:
              B/G/N= 1,2,3,4,5,6,7,8,9,10,11 (Disallowed= )
              A/N Indoor= 36,40,44,48,149,153,157,161 (Disallowed= )
              A/N Outdoor= 36,40,44,48,149,153,157,161 (Disallowed= )
            Radio 11bgn:
              Channelization= Auto
              Channel= Auto
              Tx. Power= Auto
              11N only Mode= Auto
              WLAN Group= Default
              Call Admission Control= OFF
              SpectraLink Compatibility= Disabled
            Radio 11an:
              Channelization= Auto
              Indoor Channel= Auto
```

```
                Outdoor Channel= Auto
                Tx. Power= Auto
                11N only Mode= Auto
                WLAN Group= Default
                Call Admission Control= OFF
                SpectraLink Compatibility= Disabled
              Network Setting:
                Protocol mode= Use Parent Setting
              Turn off channfly setting: Use Parent Setting
              Members:

ruckus(config-apgrp)#
```

Radio 2.4/5 GHz Commands

Use the radio 2.4 or radio 5 commands to configure the 2.4/5 GHz radios on all APs within an AP group.

radio

To configure radio settings for the 2.4 GHz or 5 GHz radios of an AP group, use the following command:

radio [**2.4**|**5**]*arguments*

Syntax Description

radio
Configure AP group radio settings

2.4
Configure 2.4 GHz radio

5
Configure 5 GHz radio

no
Disables settings for the specified radios in the AP group

channel
Set radio channel (Auto or number)

channelization
Set radio channel width (Auto, 20MHz or 40MHz)

auto-channel-selection [**four-channel**| **three-channel**]
Set auto channel selection to four-channel (1,5,9,13) or three-channel (1,6,11)

tx-power
Set radio transmit power (Auto, Full, 1/2, 1/4, 1/8, Min) or *NUMBER* (-1dB~-10dB)

wlan-group
Set radio to the specified WLAN group

admission-control
Set the radio to use the specific call admission control airtime usage limit (%)

spectralink-compatibility
Enable SpectraLink Compatibility settings on the radio (sets DTIM=2, minrate=5.5Mbps and enable RTS-CTS protection mode)

wlan-service
Disable or enable WLAN service on the radio

Defaults

Channel: Auto

Channelization: Auto

Auto-Channel Selection: Three-channel

TX Power: Auto

WLAN group: Default

Admission Control: Off

SpecraLink Compatibility: Off

WLAN Service: Enabled

Example

```
ruckus(config)# ap-group "System Default"
The AP group entry 'System Default' has been loaded. To save the AP group, type 'end' or 'exit'.
ruckus(config-apgrp)# radio 2.4 channel auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-apgrp)# radio 5 channelization auto
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-apgrp)# radio 5 wlan-group Default
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-apgrp)# radio 2.4 tx-power Num 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-apgrp)# show
APGROUP:
 ID:
 1:
 Name= System Default
 Description= System default group for Access Points
 Radio 11bgn:
 Channelization= Auto
 Channel= Auto
 Enable auto channel selection which select from 1,6,11= Yes
 Tx. Power= -1dB
 WLAN Group= Default
 Radio 11an:
 Channelization= Auto
 Channel= Auto
 Tx. Power= Auto
 WLAN Group= Default
 Members:
 MAC= 04:4f:aa:0c:b1:00
 MAC= 00:24:82:3f:14:60
 MAC= 74:91:1a:2b:ff:a0
 MAC= 00:1f:41:2a:2b:10

ruckus(config-apgrp)# end
The AP group 'System Default' has been updated.
Your changes have been saved.
ruckus(config)#
```

radio 2.4 channel auto

Sets the 2.4GHz radio to use 'Auto' channel.

radio 2.4 channel number <NUMBER>

Sets the 2.4GHz radio to use the specified channel.

radio 2.4 channelization auto

Sets the 2.4GHz radio to use 'Auto' channelization.

radio 2.4 channelization number <NUMBER>

Sets the 2.4GHz radio to use the specified channelization.

radio 2.4 auto-channel-selection four-channel

Enables the auto channel selection which always select from 1,5,9,13.

radio 2.4 auto-channel-selection three-channel

Enables the auto channel selection which always select from 1,6,11.

radio 2.4 tx-power Auto

Sets the 2.4GHz radio to use 'Auto' Tx. power setting.

radio 2.4 tx-power Full

Sets the 2.4GHz radio to use the specified Tx. power setting.

radio 2.4 tx-power 1/2

Sets the 2.4GHz radio to use the specified Tx. power setting.

radio 2.4 tx-power 1/4

Sets the 2.4GHz radio to use the specified Tx. power setting.

radio 2.4 tx-power 1/8

Sets the 2.4GHz radio to use the specified Tx. power setting.

radio 2.4 tx-power Min

Sets the 2.4GHz radio to use the specified Tx. power setting.

radio 2.4 tx-power Num

Sets the 2.4GHz radio to use the specified Tx by number from 1-10 (-1dB ~ -10dB).

radio 2.4 wlan-group <WORD>

Assigns the 2.4GHz radio to the specified WLAN group.

radio 2.4 admission-control <VALUE>

Sets the 2.4GHz radio to use the specific call admission control airtime usage limit(%).

radio 2.4 prot-mode

Syntax

radio 2.4 prot-mode { **none** | **cts-only**| **rts-cts** }

Options

- None: Sets Protection Mode to 'none'
- cts-only: Sets Protection Mode to 'cts-only'
- rts-cts: Sets Protection Mode to 'rts-cts'

Example

```
ruckus(config-ap)# radio 2.4 prot-mode rts-cts
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-ap)#
```

radio 2.4 wlan-service [enable | disable]

Enables or disables the WLAN service on the 2.4GHz radio.

radio 2.4 channel-range <NUMBER-LIST>

Sets the allowed list of channels used in 2.4GHz radio.

radio 5 indoor channel auto

Sets the 5GHz radio (indoor) to use 'Auto' channel.

radio 5 indoor channel number <NUMBER>

Sets the 5GHz radio (indoor) to use the specified channel.

radio 5 indoor channel-range <NUMBER-LIST>

Sets the allowed list of indoor channels used in 5GHz radio.

radio 5 outdoor channel auto

Sets the 5GHz radio (outdoor) to use 'Auto' channel.

radio 5 outdoor channel number <NUMBER>

Sets the 5GHz radio (outdoor) to use the specified channel.

radio 5 outdoor channel-range <NUMBER-LIST>

Sets the allowed list of outdoor channels used in 5GHz radio.

radio 5 channel auto

Sets the 5GHz radio to use 'Auto' channel.

radio 5 channel number <NUMBER>

Sets the 5GHz radio to use the specified channel.

radio 5 channelization auto

Sets the 5GHz radio to use 'Auto' channelization.

radio 5 channelization number <NUMBER>

Sets the 5GHz radio to use the specified channelization.

radio 5 tx-power Auto

Sets the 5GHz radio to use 'Auto' Tx. power setting.

radio 5 tx-power Full

Sets the 5GHz radio to use the specified Tx. power setting.

radio 5 tx-power 1/2

Sets the 5GHz radio to use the specified Tx. power setting.

radio 5 tx-power 1/4

Sets the 5GHz radio to use the specified Tx. power setting.

radio 5 tx-power 1/8

Sets the 5GHz radio to use the specified Tx. power setting.

radio 5 tx-power Min

Sets the 5GHz radio to use the specified Tx. power setting.

radio 5 tx-power Num

Sets the 5GHz radio to use the specified Tx by number from 1-10 (-1dB ~ -10dB).

radio 5 wlan-group <WORD>

Assigns the 5GHz radio to the specified WLAN group.

radio 5 admission-control <VALUE>

Sets the 5GHz radio to use the specific call admission control airtime usage limit(%).

radio 5 wlan-service [enable | disable]

Enables or disables the WLAN service on the 5GHz radio.

no radio 2.4 channelization-override

Disables the override of the 2.4GHz channelization settings.

no radio 2.4 channel-range-override

Disables the override of the 2.4GHz channel range settings.

no radio 2.4 channel-override

Disables the override of the 2.4GHz channel settings.

no radio 2.4 tx-power-override

Disables the override of the 2.4GHz Tx. power settings.

no radio 2.4 wlan-group-override

Disables the override of the 2.4GHz WLAN group settings.

no radio 2.4 admission-control

Disables call admission control function on the 2.4GHz radio.

no radio 2.4 admission-control-override

Disables the override of the 2.4GHz call admission control settings.

no radio 2.4 prot-mode-override

Disables the override of the 2.4GHz Protection Mode settings.

no radio 2.4 wlan-service-override

Disables the override of the 2.4GHz WLAN service settings.

no radio 5 indoor channel-range-override

Disables the override of the 5GHz indoor channel range settings.

no radio 5 indoor channel-override

Disables the override of the 5GHz indoor channel settings.

no radio 5 outdoor channel-range-override

Disables the override of the 5GHz outdoor channel range settings.

no radio 5 outdoor channel-override

Disables the override of the 5GHz outdoor channel settings.

no radio 5 channelization-override

Disables the override of the 5GHz channelization settings.

no radio 5 tx-power-override

Disables the override of the 5GHz Tx. power settings.

no radio 5 wlan-group-override

Disables the override of the 5GHz WLAN group settings.

no radio 5 admission-control

Disables call admission control function on the 5GHz radio.

no radio 5 admission-control-override

Disables the override of the 5GHz call admission control settings.

no radio 5 wlan-service-override

Disables the override of the 5GHz WLAN service settings.

QoS Commands (AP)

Use the following commands to configure QoS settings for the AP group.

qos

Contains commands that can be executed from within the context.

qos mld-query

Contains commands that can be executed from within the context.

qos mld-query v1

Enables the mld-query v1.

qos mld-query v2

Enables the mld-query v2.

qos igmp-query

Contains commands that can be executed from within the context.

qos igmp-query v2

Enables the igmp-query v2.

qos igmp-query v3

Enables the igmp-query v3.

no qos mld-query v1

Disables the mld-query v1.

no qos mld-query v2

Disables the mld-query v2.

no qos igmp-query v2

Disables the igmp-query v2.

no qos igmp-query v3

Disables the igmp-query v3.

Model-Specific Commands

The following commands are used to configure model-specific settings for all APs of a certain model within an AP group.

no model-setting

To discard the model settings for this specified model, use the following command:

no model-setting *WORD*

model

To configure model-specific settings for all APs of a certain model within an AP group, use the following command:

model *<WORD> <arguments>*

Syntax Description

model
Configure AP group model-specific settings

<WORD>
Enter the AP model name.

port-setting
Configures the port setting for the specified AP model. Enters config-apgrp-port context. See port-setting on page 204 for more information.

status-leds
Configures the status LEDs for the specified AP model (enable, disable).

usb-port
Configures the USB port settings for the AP model (enable, disable).

external-antenna
Configures external antenna settings. See external-antenna on page 220.

max-clients *NUMBER*
Sets the maximum clients for the AP.

usb-software *VID-PID-VERSION*
Selects the USB Software Vendor ID, Product ID and version for the AP.

poe-out
Configures the PoE Out ports for the specified AP model (enable, disable).

internal-heater
Configures the internal heater for the specified AP model (enable, disable).

cband-channels
Configures the C-band (5.8 GHz) channels for the specified AP model (enable, disable). (UK country code only)

cband-license
Enable or disable 5.8 GHz Channels License for the specified AP model.

lacp-status
Configure LACP status for the specified AP model.

power-mode
Sets the PoE mode for the specified AP model.

802.3af-txchain
Sets the 2.4GHz radio transmit chains in 802.3af PoE mode for the specified AP model.

Defaults

Status LEDs: Enabled

PoE Out: Disabled

USB Software: Disabled

Internal Heater: Disabled

C-band channels: Disabled

C-band license: Disabled

LACP status: Disabled

Power mode: Varies by AP model

USB Ports: Enabled

Power Mode: Default

802.3af-txchain: Varies by AP model

Example

```
ruckus(config-apgrp)# model R610 status-leds enable
ruckus(config-apgrp)# end
The AP group 'System Default' has been updated.
Your changes have been saved.
ruckus(config)#
```

port-setting

To modify model-specific port settings for all APs of the specified model within the AP group, use the following command:

model *<WORD>* **port-setting**

Syntax Description

port-setting
Enters the port-setting context.

no port-setting
Disables the override of the global AP mode configuration.

help
Shows available commands.

history
Shows a list of previously run commands.

abort
Exits the config-apgrp-port context without saving changes.

end
Saves changes, and then exits the config-apgrp-port context.

exit
Saves changes, and then exits the config-apgrp-port context.

quit
Exits the config-apgrp-port context without saving changes.

show
Displays config-apgrp-port context.

lan *NUMBER*
Enables the AP Ethernet port.

lan *NUMBER* **uplink** *WORD*
Sets the AP port to use the specified type (trunk, access or general).

lan *NUMBER* **untag** *NUMBER*
Sets the AP port to use the specified VLAN ID(1-4094).

lan *NUMBER* **member** *NUMBER*
Sets the AP port to use the specified members(1-4094).

lan *NUMBER* **opt82 enabled**
Enables the AP port DHCP option 82 settings.

lan *NUMBER* **opt82 disabled**
Disables the AP port DHCP option 82 settings.

lan *NUMBER* **tunnel disabled**
Disables the AP port tunnel settings.

lan *NUMBER* **tunnel enabled**
Enables the AP port tunnel settings.

lan *NUMBER* **dot1x disabled**
Disables the AP port 802.1X settings.

lan *NUMBER* **dot1x supplicant**
Sets the AP port to 802.1X supplicant.

lan *NUMBER* **dot1x auth-port-based**
Sets the AP port to port-based 802.1X.

lan*NUMBER* **dot1x auth-mac-based**
Sets the AP port to mac-based 802.1X.

lan *NUMBER* **guest-vlan** *WORD*
Sets the AP port to use the specified guest VLAN ID(1-4094).

lan *NUMBER* **dvlan enabled**
Enables the AP port dynamic VLAN settings.

lan *NUMBER* **dvlan disabled**
Disables the AP port dynamic VLAN settings.

lan *NUMBER* **qos mld-snooping**
Enables the AP port MLD Snooping setting.

lan *NUMBER* **qos igmp-snooping**
Enables the AP port IGMP Snooping setting.

lan *NUMBER* **qos directed-mcast**
Enables the AP port Directed Multicast setting.

dot1x supplicant mac
Sets the username and password to use AP MAC address for AP 802.1X supplicant.

dot1x supplicant user-name *WORD*
Sets the username for AP 802.1X supplicant.

dot1x supplicant user-name *WORD* **password** *WORD*
Sets the password for AP 802.1X supplicant.

dot1x authsvr *WORD*;
Sets the authentication server for AP 802.1X.

dot1x acctsvr *WORD*
Sets the accounting server for AP 802.1X.

dot1x mac-auth-bypass
Enables MAC authentication bypass (Use device MAC address as username and password).

no lan *NUMBER*
Disables the AP Ethernet port.

no dot1x authsvr
Disables the auth server settings.

no lan *NUMBER* **qos mld-snooping**
Disables the AP port MLD Snooping setting.

no lan *NUMBER* **qos igmp-snooping**
Disables the AP port IGMP snooping setting.

no lan *NUMBER* **qos directed-mcast**
Disables the AP port Directed Multicast setting.

no dot1x authsvr
Disables the authentication server settings.

no dot1x acctsvr
Disables the accounting server settings.

no dot1x mac-auth-bypass
Disables the MAC authentication bypass.

Example

```
ruckus(config-apgrp)# model zf7372 port-setting
ruckus(config-apgrp-port)# show
PORTS:
    LAN ID:
          1:
            Enable LAN = Yes
            LAN Type= trunk
            Untag ID= 1
            Members= 1-4094
            Guest VLAN=
            Enable Dynamic VLAN= Disabled
```

```
              802.1X= disabled
              DHCP opt82= Disabled
              Tunnel= Disabled
              MLD Snooping= Disabled
              IGMP Snooping= Enabled
            2:
              Enable LAN = Yes
              LAN Type= trunk
              Untag ID= 1
              Members= 1-4094
              Guest VLAN=
              Enable Dynamic VLAN= Disabled
              802.1X= disabled
              DHCP opt82= Disabled
              Tunnel= Disabled
              MLD Snooping= Disabled
              IGMP Snooping= Enabled

ruckus(config-apgrp-port)#
```

Model-Specific Port Settings

This section describes the commands that you can use to configure port settings for all APs of a specific model within an AP group. The following commands can be executed from within the **config-apgrp-port** context. To show a list of commands available from within the context, type **help** or **?**.

model port-setting

To configure the port settings for all APs of a specific model within an AP group, and enter the config-apgrp-port context, use the following command:

model *WORD* **port-setting**

Syntax Description

model

Configure AP group model-specific settings

WORD

Enter the AP model name (e.g., zf2942, zf2741, zf7025, zf7341, zf7343, zf7363, zf7761cm, zf7762, zf7762-s, zf7762-t, zf7762-ac, zf7762-s-ac, zf7762-t-ac, zf7942, zf7962).

port-setting

Configures the port setting for the specified AP model. Enters config-apgrp-port context.

Example

```
ruckus(config)# ap-group "System Default"
The AP group entry 'System Default' has been loaded. To save the AP group, type 'end' or 'exit'.
ruckus(config-apgrp)# model zf7025 port-setting
ruckus(config-apgrp-port)#
```

abort

To exit the config-apgrp-port context without saving changes, use the following command:

abort

Syntax Description

abort

Exit the context without saving changes

Defaults

None.

Example

```
ruckus(config-apgrp-port)# abort
ruckus(config-apgrp)#
```

end

To save changes, and then exit the config-apgrp-port context, use the following command:

end

Syntax Description

end

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-apgrp-port)# end
ruckus(config-apgrp)#
```

exit

To save changes, and then exit the config-apgrp-port context, use the following command:

exit

Syntax Description

exit

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-apgrp-port)# exit
ruckus(config-apgrp)#
```

quit

To exit the config-apgrp-port context without saving changes, use the following command:

quit

Syntax Description

quit

Exit the context without saving changes

Defaults

None.

Example

```
ruckus(config-apgrp-port)# quit
ruckus(config-apgrp)#
```

show

To show a device's port state, use the following command:

show

Syntax Description

show

Display the device's port state

Defaults

None.

Example

```
ruckus(config-apgrp)# model zf7962 port-setting
ruckus(config-apgrp-port)# show
PORTS:
LAN ID:
1:
Enable LAN = Yes
LAN Type= trunk
Untag ID= 1
Members= 1-4094
802.1X= disabled
DHCP opt82= Disabled
LAN ID:
2:
Enable LAN = Yes
LAN Type= trunk
Untag ID= 1
Members= 1-4094
802.1X= disabled
DHCP opt82= Disabled
ruckus(config-apgrp-port)#
```

no lan

To disable a LAN port on APs in an AP group, use the following command:

no lan *NUMBER*

Syntax Description

no lan

Disable a specific port

NUMBER

Disable this port

Defaults

Enabled.

Example

```
ruckus(config-apgrp-port)# no lan 2
ruckus(config-apgrp-port)#
```

lan

To enable a LAN port on APs in an AP group, use the following command:

lan *NUMBER*

Syntax Description

lan
: Enable a specific port

NUMBER
: Enable this port

Defaults

Enabled.

Example

```
ruckus(config-apgrp-port)# lan 2
ruckus(config-apgrp-port)#
```

lan uplink

To set port type, use the following command:

lan *NUMBER* **uplink** *WORD*

Syntax Description

lan
: Configure a specific port

NUMBER
: Configure this port

uplink
: Set the port type

WORD
: Port type (Trunk port, Access port, General port)

Defaults

All AP ports other than ZF 7025: Trunk

ZF 7025 port 5: Trunk

ZF 7025 LAN 1-LAN 4: Access

Example

```
ruckus(config-apgrp)# model zf7962 port-setting
ruckus(config-apgrp-port)# lan 2 uplink access
ruckus(config-apgrp-port)# show
PORTS:
LAN ID:
1:
Enable LAN = Yes
LAN Type= trunk
Untag ID= 1
Members= 1-4094
802.1X= disabled
DHCP opt82= Disabled
LAN ID:
2:
Enable LAN = Yes
LAN Type= access
Untag ID= 1
Members= 1
802.1X= disabled
DHCP opt82= Disabled
ruckus(config-apgrp-port)#
```

lan untag

To configure untag VLAN settings for a model-specific port, use the following command:

lan *NUMBER* **untag** *NUMBER*

Syntax Description

lan untag

Configure port untag VLAN

NUMBER

Configure this port

NUMBER

Set untag VLAN to this number

Defaults

1

Example

```
ruckus(config-apgrp-port)# lan 2 untag 20
ruckus(config-apgrp-port)#
```

lan member

To set the LAN port VLAN membership (only General ports have configurable membership; Trunk ports are members of all VLANs, and Access port membership must be the same as the Untag VLAN), use the following command:

lan *NUMBER* **member** *NUMBER*

Syntax Description

lan member

Set the LAN port VLAN membership

NUMBER

Specify the LAN port to configure

NUMBER

Set the VLAN membership (1~4094, range separated by hyphen, multiple VLANs separated by commas)

Defaults

1

Example

```
ruckus(config-apgrp-port)# lan 2 uplink general
ruckus(config-apgrp-port)# lan 2 member 1-10,100,200
ruckus(config-apgrp-port)# show
PORTS:
LAN ID:
1:
Enable LAN = Yes
LAN Type= trunk
Untag ID= 1
Members= 1-4094
802.1X= disabled
DHCP opt82= Disabled
LAN ID:
2:
Enable LAN = Yes
LAN Type= general
Untag ID= 20
Members= 1-10,100,200
802.1X= disabled
DHCP opt82= Disabled
ruckus(config-apgrp-port)#
```

lan opt82

To enable or disable DHCP option 82 for a LAN port, use the following command:

lan *NUMBER* **opt82** [**enable** | **disable**]

Syntax Description

lan opt82

Enable or disable DHCP option 82

enable

Enable option 82

disable

Disable option 82

Defaults

Disabled

Example

```
ruckus(config-apgrp-port)# lan 2 opt82 enable
ruckus(config-apgrp-port)#
```

dot1x

To enable 802.1X on ports of all APs of a specific model in an AP group, use the following command:

model *WORD* **dot1x**

lan *NUMBER* **dot1x** [**disable** | **supplicant** | **auth-port-based** | **auth-mac-based** | **guest-vlan** *NUMBER* | **dvlan**]

Syntax Description

lan dot1x
: Configure 802.1X settings for this port

NUMBER
: LAN port number to configure

disable
: Disable 802.1X

supplicant
: Configure this LAN port as an 802.1X supplicant

auth-port-based
: Configure this LAN port as an 802.1X authenticator (port-based)

auth-mac-based
: Configure this LAN port as an 802.1X authenticator (MAC-based)

Defaults

Disabled

Example

```
ruckus(config-apgrp)# model zf7025 port-setting
ruckus(config-apgrp-port)# lan 1 dot1x supplicant
ruckus(config-apgrp-port)# show
PORTS:
LAN ID:
1:
Enable LAN = Yes
LAN Type= access
Untag ID= 1
Members= 1
802.1X= supp
DHCP opt82= Disabled
```

dot1x authsvr

To configure 802.1X authentication server, use the following command:

dot1x authsvr *WORD*

Syntax Description

dot1x authsvr

Configure 802.1X authentication server

WORD

Name of AAA server

Defaults

None

Example

```
ruckus(config-apgrp-port)# dot1x authsvr radius
ruckus(config-apgrp-port)#
```

dot1x acctsvr

To configure 802.1X accounting server, use the following command:

dot1x acctsvr *WORD*

Syntax Description

dot1x acctsvr

Configure 802.1X accounting server

WORD

Name of AAA server

Defaults

None

Example

```
ruckus(config-apgrp-port)# dot1x acctsvr radius-acct
ruckus(config-apgrp-port)#
```

dot1x mac-auth-bypass

To configure 802.1X MAC authentication bypass, use the following command:

dot1x mac-auth-bypass

Syntax Description

dot1x mac-auth-bypass

Enable 802.1X MAC authentication bypass

Defaults

Disabled

Example

```
ruckus(config-apgrp-port)# dot1x mac-auth-bypass
ruckus(config-apgrp-port)#
```

dot1x supplicant username

To configure 802.1X supplicant user name, use the following command:

dot1x supplicant username *WORD*

Syntax Description

dot1x supplicant username
Configure 802.1X supplicant user name

WORD
Set the 802.1X supplicant user name

Defaults

None

Example

```
ruckus(config-apgrp-port)# dot1x supplicant username johndoe
ruckus(config-apgrp-port)#
```

dot1x supplicant password

To configure 802.1X supplicant password, use the following command:

dot1x supplicant password *WORD*

Syntax Description

dot1x supplicant password
Configure 802.1X supplicant password

WORD
Set the 802.1X supplicant password

Defaults

None

Example

```
ruckus(config-apgrp-port)# dot1x supplicant password test123
ruckus(config-apgrp-port)#
```

dot1x supplicant mac

To set the 802.1X supplicant user name and password as the AP's MAC address, use the following command:

dot1x supplicant mac

Syntax Description

dot1x supplicant mac
Set the supplicant user name and password as the AP's MAC address

Defaults

None

Example

```
ruckus(config-apgrp-port)# dot1x supplicant mac
ruckus(config-apgrp-port)#
```

no dot1x

To disable 802.1X settings for an AP model, use the following command:

no dot1x [**authsvr**] [**acctsvr**] [**mac-auth-bypass**]

Syntax Description

no dot1x
Disable dot1x settings for the AP

authsvr
Disable authentication server

acctsvr
Disable accounting server

mac-auth-bypass
Disable MAC authentication bypass

Defaults

None

Example

```
ruckus(config-apgrp-port)# no dot1x authsvr
ruckus(config-apgrp-port)#
```

lan guest-vlan

To set the AP port to use the specified guest VLAN ID(1-4094), use the following command:

lan *NUMBER* **guest-vlan** *WORD*

lan dvlan

To enable/disable dynamic VLAN for the AP port, use the following command:

lan *NUMBER* dvlan [**enabled** | **disabled**]

lan qos

To set the AP port QoS settings, use the following command:

lan *NUMBER* **qos**

lan qos mld-snooping

To enable MLD snooping for the port, use the following command:

lan *NUMBER* **qos mld-snooping**

lan qos igmp-snooping

To enable IGMP snooping for the port, use the following command:

lan *NUMBER* **qos igmp-snooping**

lan qos directed-mcast

To enable Directed Multicast for the port, use the following command:

lan *NUMBER* **qos directed-mcast**

no lan qos

To disable QoS settings for the port, use the following command:

no lan *NUMBER* **qos**

no lan qos mld-snooping

To disable MLD snooping on the port, use the following command:

no lan *NUMBER* **qos mld-snooping**

no lan qos igmp-snooping

To disable IGMP snooping on the port, use the following command:

no lan *NUMBER* **qos igmp-snooping**

no lan qos directed-mcast

To disable Directed Multicast on the port, use the following command:

no lan *NUMBER* **qos directed-mcast**

no dot1x

To disable 802.1x settings for the port, use the following command:

no dot1x

no dot1x authsvr

To disable the authentication server settings, use the following command

no dot1x authsvr

no dot1x acctsvr

To disable the accounting server settings, use the following command:

no tod1x acctsvr

no dot1x mac-auth-bypass

To disable MAC authentication bypass, use the following command:

no dot1x mac-auth-bypass

external-antenna

To configure the external antenna settings for all APs of the specified model within the AP group, use the following command:

external-antenna <*WORD*>

Syntax Description

external-antenna 2.4Ghz(11BG) enable
Enables the external antenna setting for the 2.4GHz(11BG) radio.

external-antenna 2.4Ghz(11BG) disable
Disables the external antenna setting for the 2.4GHz(11BG) radio.

external-antenna 2.4Ghz(11BG) gain
Sets the external antenna gain for the 2.4GHz(11BG) radio.

external-antenna 2.4Ghz(11BG) 2-antennas
Selects the two external antennas for the 2.4GHz(11BG) radio.

external-antenna 2.4Ghz(11BG) 3-antennas
Selects the three external antennas for the 2.4GHz(11BG) radio.

external-antenna 2.4Ghz(11NG) enable
Enables the external antenna setting for the 2.4GHz(11NG) radio.

external-antenna 2.4Ghz(11NG) disable
Disables the external antenna setting for the 2.4GHz(11NG) radio.

external-antenna 2.4Ghz(11NG) gain
Sets the external antenna gain for the 2.4GHz(11NG) radio.

external-antenna 2.4Ghz(11NG) 2-antennas
Selects the two external antennas for the 2.4GHz(11NG) radio.

external-antenna 2.4Ghz(11NG) 3-antennas
Selects the three external antennas for the 2.4GHz(11NG) radio.

external-antenna 5Ghz(11NA) enable
Enables the external antenna setting for the 5GHz(11NA) radio.

external-antenna 5Ghz(11NA) disable
Disables the external antenna setting for the 5GHz(11NA) radio.

external-antenna 5Ghz(11NA) gain
Sets the external antenna gain for the 5GHz(11NA) radio.

external-antenna 5Ghz(11NA) 2-antennas
Selects the two external antennas for the 2.4GHz(11NA) radio.

external-antenna 5Ghz(11NA) 3-antennas
Selects the three external antennas for the 2.4GHz(11NA) radio.

external-antenna 5Ghz(11A) enable
Enables the external antenna setting for the 5GHz(11A) radio.

external-antenna 5Ghz(11A) disable
Disables the external antenna setting for the 5GHz(11A) radio.

external-antenna 5Ghz(11A) gain
Sets the external antenna gain for the 5GHz(11A) radio.

external-antenna 5Ghz(11A) 2-antennas
Selects the two external antennas for the 2.4GHz(11A) radio.

external-antenna 5Ghz(11A) 3-antennas
Selects the three external antennas for the 2.4GHz(11A) radio.

power-mode

To set the PoE mode of the AP, use the following command:

model *WORD* **power-mode** *WORD*

Syntax Description

model *WORD*
Set the AP model.

power-mode
Set the AP's PoE power mode.

auto
Set the power mode to Auto.

802.3af
Set the power mode to 802.3af.

802.3at
Set the power mode to 802.3at.

Example

```
ruckus(config-apgrp)# model R710 power-mode auto
ruckus(config-apgrp)#
```

no power-mode-override

To disable the override of the PoE mode, use the following command:

no model *WORD* **power-mode-override**

802.3af-txchain

To set the number of 2.4 GHz radio transmit chains in 802.3af power mode for the AP, use the following command:

model *WORD* **802.3af-txchain** *WORD*

Syntax Description

model *WORD*
Set the AP model.

802.3af-txchain

Set the number of 2.4 GHz radio chains.

1

Set the radio chains to 1.

2

Set the radio chains to 2.

4

Set the radio chains to 4.

Example

```
ruckus(config-apgrp)# model R710 802.3af-txchain 1
ruckus(config-apgrp)#
```

no 802.3af-txchain-override

To disable the override of the 2.4 GHz radio transmit chains in 802.3af PoE mode, use the following command:

no model *WORD* **802.3af-txchain-override**

AP Group Membership

Use the following commands to configure AP group membership (move APs into or out of the current AP group, from within the **config-apgrp** context).

member

Adds or moves the AP to the specified AP group.

member [**add** | **move**] **mac** *WORD* [**system-default** | **name** *WORD*]

member add mac

To add the AP to the specified AP group, use the following command:

member add mac *WORD*

Example

```
ruckus(config-apgrp)# member add mac c4:10:8a:1f:d1:f0
ruckus(config-apgrp)# show
APGROUP:
       ID:
         :
           Name= apgroup2
           Description=
           Channel Range:
             B/G/N= 1,2,3,4,5,6,7,8,9,10,11 (Disallowed= )
             A/N Indoor= 36,40,44,48,149,153,157,161 (Disallowed= )
             A/N Outdoor= 36,40,44,48,149,153,157,161 (Disallowed= )
           Radio 11bgn:
             Channelization= Auto
             Channel= Auto
             Tx. Power= Auto
             11N only Mode= Auto
             WLAN Group= Default
             Call Admission Control= OFF
             SpectraLink Compatibility= Disabled
           Radio 11an:
             Channelization= Auto
             Indoor Channel= Auto
             Outdoor Channel= Auto
             Tx. Power= Auto
             11N only Mode= Auto
             WLAN Group= Default
             Call Admission Control= OFF
             SpectraLink Compatibility= Disabled
           Network Setting:
             Protocol mode= Use Parent Setting
           Turn off channfly setting: disabled
             if AP's uptime is more than 30 minutes will turn off AP's ChannelFly
           Members:
             MAC= c4:10:8a:1f:d1:f0

ruckus(config-apgrp)#
```

member mac move-to system-default

To move the AP from the current AP group to the System Default AP group, use the following command:

member mac *WORD* **move-to system-default**

Example

```
ruckus(config-apgrp)# member mac c4:10:8a:1f:d1:f0 move-to system-default
ruckus(config-apgrp)#
```

member mac move-to name

To move the AP from the current AP group to the specified AP group, use the following command:

member mac *WORD* **move-to name** *WORD*

Example

```
ruckus(config-apgrp)# member mac c4:10:8a:1f:d1:f0 move-to name apgroup2
ruckus(config-apgrp)#
```

LLDP Commands

To enable, disable or configure the Link Layer Discovery Protocol (LLDP) commands for the AP group, use the following commands from within the **config-apgrp** context.

lldp

To enable, disable or configure the AP group's Link Layer Discover Protocol settings, use the following commands.

Syntax Description

lldp
Configure LLDP settings.

enable
Enable LLDP with current settings.

disable
Disable LLDP with current settings.

interval *NUMBER*
Set packet transmit interval in second(s).

holdtime *NUMBER*
Set amount of time receiving device should retain the information.

ifname eth *NUMBER*
Enter the AP port number.

mgmt enable
Enable LLDP management IP address of the AP.

mgmt disable
Disable LLDP management IP address of the AP.

Example

```
ruckus(config-apgrp)# lldp enable
ruckus(config-apgrp)#
```

no lldp

To allow ZoneDirector to modify AP's LLDP settings, use the following command:

no lldp keep-ap-settings

Syntax Description

no lldp keep-ap-settings

Example

```
ruckus(config-ap)# no lldp keep-ap-setting
ruckus(config-ap)#
```

lldp keep-ap-setting

To not let the controller modify the AP's LLDP settings, use the following command:

lldp keep-ap-setting

Example

```
ruckus(config-apgrp)# lldp keep-ap-setting
ruckus(config-apgrp)#
```

no lldp keep-ap-setting

To allow the controller to modify the AP's LLDP settings, use the following command:

no lldp keep-ap-setting

Example

```
ruckus(config-apgrp)# no lldp keep-ap-setting
ruckus(config-apgrp)#
```

Configure Certificate Commands

Use the **config-certificate** commands to restore the default ZoneDirector certificate or to regenerate the private key. To run these commands, you must first enter the **config-certificate** context.

quit

Exits the certificate settings context without saving changes.

restore

To restore the default ZoneDirector certificate and private key, use the following command.

restore

Syntax Description

restore

Restore the default ZoneDirectory certificate and private key. The restore process will be completed after ZoneDirector is rebooted.

Defaults

None.

Example

```
ruckus(config-certificate)# restore
ZoneDirector will restart now to apply the changes in the certificate settings. If you want to
configure other settings, log in again after ZoneDirector has completed restarting.
```

re-generate-private-key

To regenerate the ZoneDirector private key, use the following command:

re-generate-private-key {**1024** | **2048** }

Syntax Description

re-generate-private-key

Regenerate the ZoneDirector private key

{**1024** | **2048** }

Specify the length of the private key as either 1024 or 2048.

Defaults

None.

Example

```
ruckus(config-certificate)# re-generate-private-key 1024
ZoneDirector will restart now to apply the changes in the certificate settings. If you want to
configure other settings, log in again after ZoneDirector has completed restarting.
The operation doesn't execute successfully. Please try again.
```

Configure Hotspot Redirect Settings

To configure Hotspot redirect settings, use the following command:

hotspot_redirect_https

To enable Hotspot redirect, use the following command:

hotspot_redirect_https

Defaults

None.

Example

```
ruckus(config)# hotspot_redirect_https
/bin/hotspot_redirect_https enable
ruckus(config)#
```

no hotspot_redirect_https

To disable Hotspot redirect, use the following command:

no hotspot_redirect_https

Defaults

None.

Example

```
ruckus(config)# no hotspot_redirect_https
/bin/hotspot_redirect_https disable
ruckus(config)#
```

no blocked-client

To remove a blocked client from the blocked clients list, use the following command:

no blocked-client *MAC*

Defaults

None.

Example

```
ruckus(config)# no blocked-client dc:2b:61:13:f7:72
The L2 ACL 'dc:2b:61:13:f7:72' has been deleted.
ruckus(config)#
```

Configure Layer 2 Access Control Commands

Use the layer2 access control commands to configure the Layer 2 Access Control List settings. To run these commands, you must first enter the **config-l2acl** context.

acl

To create a new L2 ACL entry or update an existing entry, use the following command:

acl *WORD*

Syntax Description

acl

Create a new ACL

WORD

Assign this name to the new ACL

Defaults

None.

Example

```
ruckus(config)# l2acl l2acl1
The L2 ACL entry 'l2acl1' has been created.
ruckus(config-l2acl)#
```

no acl

To delete an L2 ACL, use the following command:

no acl *WORD*

Syntax Description

no acl

Delete an existing ACL

WORD

Delete this ACL

Defaults

None.

Example

```
ruckus(config)# no l2acl l2acl1
The L2 ACL 'l2acl1' has been deleted.
ruckus(config)#
```

abort

To exit the config-l2acl context without saving changes, use the following command:

abort

end

To save changes, and then exit the config-l2acl context, use the following command:

end

Example

```
ruckus(config-l2acl)# end
The L2 ACL entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-l2acl context, use the following command:

exit

Example

```
ruckus(config-l2acl)# exit
The L2 ACL entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

quit

To exit the config-l2acl context without saving changes, use the following command:

quit

Example

```
ruckus(config-l2acl)# quit
No changes have been saved.
ruckus(config)#
```

show

To displays the L2 ACL settings, use the show command. You must run this command from within the config-l2acl context.

show

Example

```
ruckus(config-l2acl)# show
L2/MAC ACL:
```

```
  ID:
    :
      Name= l2acl1
      Description=
      Restriction= Deny only the stations listed below
      Stations:
        MAC Address= 00:11:22:33:44:55

ruckus(config-l2acl)#
```

name

To rename an L2 ACL entry, use the following command:

name *WORD*

Syntax Description

name

Sets the L2 ACL entry name.

WORD

Rename the ACL to this name.

Defaults

None.

Example

```
ruckus(config)# l2acl l2acl1
The L2 ACL entry 'l2acl1' has been created.
ruckus(config-l2acl)# name L2-ACL-1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l2acl)#
```

description

To set the description of an L2 ACL entry, use the following command (multiple word text must be enclosed in quotation marks):

description *WORD*

Syntax Description

description *WORD*

Set the L2 ACL description.

Defaults

None.

Example

```
ruckus(config)# l2acl l2acl1
The L2 ACL entry 'l2acl1' has been created.
```

```
ruckus(config-l2acl)# description "L2 ACL 1"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l2acl)#
```

add-mac

To add a MAC address to the L2 ACL, use the following command:

add-mac *MAC*

Syntax Description

add mac
: Add a MAC address to the ACL

MAC
: Add this MAC address

Defaults

None.

Example

```
ruckus(config-l2acl)# add-mac 00:11:22:33:44:55
The station '00:11:22:33:44:55' has been added to the ACL.
ruckus(config-l2acl)#
```

mode allow

To set the ACL mode to 'allow', use the following command:

mode allow

Syntax Description

mode allow
: Set the ACL mode to allow

Defaults

None.

Example

```
ruckus(config-l2acl)# mode allow
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l2acl)#
```

mode deny

To set the ACL mode to 'deny', use the following command:

mode deny

Syntax Description

mode deny

Set the ACL mode to deny

Defaults

None.

Example

```
ruckus(config-l2acl)# mode deny
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l2acl)#
```

del-mac

To delete a MAC address from an L2 ACL, use the following command:

del-mac *MAC*

Syntax Description

del-mac

Delete a MAC address from the ACL

MAC

Delete this *MAC*

Defaults

None.

Example

```
ruckus(config-l2-acl)# del-mac 00:01:02:34:44:55
The station '00:01:02:34:44:55' has been removed from the ACL.
ruckus(config-l2-acl)# del-mac 00:01:02:34:44:55
The station '00:01:02:34:44:55' could not be found. Please check the spelling, and then try again.
```

Configure Layer 3 Access Control Commands

Use the **l3acl** commands to configure the Layer 3 Access Control List settings. To run these commands, you must first enter the **config-l3acl** or **config-l3acl-ipv6** context.

l3acl

To enter the config-l3acl context, run this command:

l3acl *WORD*

Syntax Description

l3acl

Create or configure a Layer 3 Access Control List

WORD

Name of the L3 ACL

Defaults

None.

Example

```
ruckus(config)# l3acl "ACL 1"
The L3/L4/IP ACL entry 'ACL 1' has been created.
ruckus(config-l3acl)#
```

no l3acl

To delete an L3/L4 ACL entry, use the following command:

no l3acl *WORD*

Syntax Description

no l3acl

Delete a Layer 3 ACL

WORD

Name of the L3 ACL

Defaults

None.

Example

```
ruckus(config)# no l3acl "ACL test"
The L3/L4/IP ACL 'ACL test' has been deleted.
ruckus(config)#
```

l3acl-ipv6

To enter the config-l3acl-ipv6 context, run this command:

l3acl-ipv6 *WORD*

Syntax Description

l3acl-ipv6

Create or configure a Layer 3 Access Control List

WORD

Name of the L3 ACL

Defaults

None.

Example

```
ruckus(config)# l3acl-ipv6 "ACL 2"
The L3/L4/IPv6 ACL entry 'ACL 2' has been created.
ruckus(config-l3acl-ipv6)#
```

no l3acl-ipv6

To disable Layer 3/4 IPv6 ACLs, use the following command:

no l3acl-ipv6

abort

To exit the config-l3acl context without saving changes, use the following command:

abort

Example

```
ruckus(config-l3acl)# abort
No changes have been saved.
ruckus(config)#
```

end

To save changes, and then exit the config-l3acl context, use the following command:

end

Example

```
ruckus(config-l3acl)# end
The L3/L4/IP ACL entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-l3acl context, use the following command:

exit

Example

```
ruckus# config-l3acl
ruckus(config-l3acl)# exit
Your changes have been saved.
```

quit

To exit the config-l3acl context without saving changes, use the following command:

quit

Example

```
ruckus(config-l3acl)# quit
No changes have been saved.
ruckus(config)#
```

show

To display the L3ACL settings, use the show command. You must run this command from within the config-l3acl context.

show

Example

```
ruckus(config-l3acl)# show
L3/L4/IP ACL:
ID:
3:
Name= test_newname
Description= justfortestCLI
Default Action if no rule is matched= Deny all by default
Rules:
Order= 1
Description=
Type= Allow
Destination Address= Any
Destination Port= 53
Protocol= Any
Order= 2
Description=
Type= Allow
Destination Address= Any
Destination Port= 67
Protocol= Any
```

name

To set the name of anL3/L4/IP ACL entry, use the following command:

name *WORD*

Syntax Description

name

Set the name of anL3/L4/IP ACL entry

WORD

Name of the L3/L4/IP ACL entry

Defaults

None.

Example

```
ruckus(config-l3acl)# name test_newname
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

description

To set the description of an L3/L4/IP ACL entry, use the following command (multiple word text must be enclosed in quotes):

description *WORD*

Syntax Description

description

Set the L3/L4/IP ACL entry description

WORD

Set to this description

Defaults

None.

Example

```
ruckus(config-l3acl)# description justfortestCLI
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

mode allow

To set the ACL mode to ‘allow’, use the following command:

mode allow

Syntax Description

mode

Set the ACL mode

allow

Set the mode to ‘allow’

Defaults

None.

Example

```
ruckus(config-l3acl)# mode allow
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

mode deny

To set the ACL mode to ‘deny’, use the following command:

mode deny

Syntax Description

mode
: Set the ACL mode

deny
: Set the mode to ‘deny’

Defaults

None.

Example

```
ruckus(config-l3acl)# mode deny
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

rule-order

To create or modify a rule in the L3/L4/IP ACL, use the following command:

rule-order *NUMBER*

Syntax Description

rule-order
: Create a new rule or modify an existing one

NUMBER
: Create or modify this rule ID

Defaults

None.

Example

For example, to set the current rule as the third ACL rule to apply, use the following command:

```
ruckus(config-l3acl)# rule-order 3
ruckus(config-l3acl-rule)#
```

source address

To set the source address of a L3/L4/IP ACL rule, use the following command:

source address <IP-ADDR/WORD>

Example

```
ruckus(config-l3acl-rule)# source address 192.168.0.1/24
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l3acl-rule)#
```

source port

To set the source port of a L3/L4/IP ACL rule, use the following command:

source port <NUMBER/WORD>

Example

```
ruckus(config-l3acl-rule)# source port 880
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l3acl-rule)#
```

no rule-order

To delete a rule from the L3/L4/IP ACL, use the following command:

no rule-order *NUMBER*

Syntax Description

no rule-order

Delete a rule from the L3/L4/IP ACL

NUMBER

Delete this rule ID

Defaults

None.

Example

```
ruckus(config-l3acl)# no rule-order 3
The rule '3' has been removed from the ACL.
```

Layer 3 Access Control Rule Commands

Use the **l3acl-rule** commands to configure the Layer 3/Layer 4/IP Access Control List rules. To run these commands, you must first enter the **config-l3acl-rule** context. To enter the **config-l3acl-rule** context, run this command:

rule-order *NUMBER*

end

To save changes, and then exit the config-l3acl-rule context, use the following command:

end

exit

To save changes, and then exit the config-l3acl-rule context, use the following command:

exit

order

To set the L3/L4/IP ACL rule order, use the following command:

order *NUMBER*

Example

```
ruckus(config-l3acl-rule)# order 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-l3acl-rule)#
```

description

To set the description of an L3/L4/IP ACL rule, use the following command (multiple word text must be enclosed in quotes):

description *WORD*

Syntax Description

description

Set the L3/L4/IP ACL rule description

WORD

Set to this description

Defaults

None.

Example

```
ruckus(config-l3acl-rule)# description thirdl3rule
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

type allow

To set the ACL rule type to ‘allow’, use the following command:

type allow

Syntax Description

type

Set the ACL rule type

allow

Set the rule type to ‘allow’

Defaults

None.

Example

```
ruckus(config-l3acl-rule)# type allow
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

type deny

To set the ACL rule type to ‘deny’, use the following command:

type deny

Syntax Description

type

Set the ACL rule type

deny

Set the rule type to ‘deny’

Defaults

None.

Example

```
ruckus(config-l3acl-rule)# type deny
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

destination address

To set the destination address of the rule, use the following command:

destination address *IP-ADDR/WORD*

Syntax Description

destination address
Set the destination address of the rule

IP-ADDR/WORD
Set the destination to this IP address

Defaults

None.

Example

```
ruckus(config-l3acl-rule)# destination address 192.168.1.22
The destination IP address is invalid. Please enter 'Any' or check the IP address(for example:
192.168.0.1/24), and then please try again.
ruckus(config-l3acl-rule)# destination address 192.168.1.22/24
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

destination port

To set the destination port of the rule, use the following command:

destination port *NUMBER/WORD*

Syntax Description

destination port
Set the destination port of the rule

NUMBER/WORD
Set the destination to this port number

Defaults

None.

Example

```
ruckus(config-l3acl-rule)# destination port 580
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

protocol

To set the protocol for the rule, use the following command:

protocol *NUMBER/WORD*

Syntax Description

protocol

Set the protocol for the rule

NUMBER/WORD

Set to this protocol

Defaults

None.

Example

```
ruckus(config-l3acl-rule)# protocol tcp
The protocol must be a number between 0 and 254.
ruckus(config-l3acl-rule)# protocol Any
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

show

To display L3/L4/IP ACL settings, use the following command:

show

Example

```
ruckus(config-l3acl)# show
L3/L4/IP ACL:
  ID:
    :
      Name= l3acl1
      Description=
      Default Action if no rule is matched= Deny all by default
      Rules:
        1:
          Description=
          Type= Allow
          Destination Address= 192.168.1.22/24
          Destination Port= 53
          Protocol= Any
        2:
          Description=
          Type= Allow
          Destination Address= Any
          Destination Port= 67
          Protocol= Any

ruckus(config-l3acl)#
```

Layer 3 IPv6 Access Control List Commands

Use the **l3acl-ipv6** command to configure the IPv6 Layer 3/Layer 4/IP Access Control List. To run these commands, you must first enter the **config-l3acl** context.

l3acl-ipv6

To enter the **config-l3acl-ipv6** context, run this command:

l3acl-ipv6 *WORD*

abort

Exits the **config-l3acl-ipv6** context without saving changes.

end

Saves changes, and then exits the **config-l3acl-ipv6** context.

exit

Saves changes, and then exits the **config-l3acl-ipv6** context.

quit

Exits the **config-l3acl-ipv6** context without saving changes.

name

Sets the L3/L4/IPv6 ACL entry name.

description

Sets the L3/L4/IPv6 ACL entry description.

mode allow

Sets the ACL mode to 'allow'.

mode deny

Sets the ACL mode to 'deny'.

no rule-order

Deletes a rule name from the L3/L4/IPv6 ACL.

rule-order

Creates a new L3/L4/IPv6 ACL rule or modifies an existing entry rule.

Configure L3 IPv6 Rule Commands

Use the **l3acl-ipv6-rule** commands to configure the IPv6 Layer 3/Layer 4/IP Access Control List rules. To run these commands, you must first enter the **config-l3acl-ipv6-rule** context. To enter the **config-l3acl-ipv6-rule** context, run this command:

rule-order *NUMBER*

end

Saves changes, and then exits the config-l3acl-ipv6-rule context.

exit

Saves changes, and then exits the config-l3acl-ipv6-rule context.

order

Sets the L3/L4/IPv6 ACL rule order.

description

Sets the L3/L4/IPv6 ACL rule description.

type allow

Sets the ACL rule type to 'allow'.

type deny

Sets the ACL rule type to 'deny'.

destination

Contains commands that can be executed from within the context.

destination address

Sets the destination address of a L3/L4/IPv6 ACL rule.

destination port

Sets the destination port of a L3/L4/IPv6 ACL rule.

protocol

Sets the protocol of a L3/L4/IPv6 ACL rule.

icmpv6-type Any

Sets the icmpv6 type of a L3/L4/IPv6 ACL rule.

icmpv6-type number

Sets the icmpv6 type of a L3/L4/IPv6 ACL rule.

show

Displays L3/L4/IPv6 ACL settings.

Configure Precedence Policy Commands

Use the **prece** commands to configure precedence policy settings. Precedence policies are used to define the order in which VLAN and rate limiting policies are applied when the WLAN settings, AAA server configuration or Device Policy settings conflict.

To run these commands, you must first enter the **config-prece** context.

prece

To create or modify a precedence policy, use the following command:

prece *WORD*

Enters the config-prece context. To save changes and exit the context, type exit or end. To exit the context without saving changes, type abort.

Example

```
ruckus(config)# prece precedence1
The Precedence Policy entry 'precedence1' has been created.
ruckus(config-prece)#
```

no prece

To delete a precedence policy entry, use the following command:

no prece *WORD*

end

To save changes, and then exit the config-prece context, use the following command:

end

Example

```
ruckus(config-prece)# end
The Precedence Policy entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-prece context, use the following command:

exit

Example

```
ruckus(config-prece)# exit
The Precedence Policy entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

quit

To exit the config-prece context without saving changes, use the following command:

quit

Example

```
ruckus(config-prece)# quit
No changes have been saved.
ruckus(config)#
```

name

Sets the Precedence Policy entry name.

description

Sets the Precedence Policy entry description.

show

To display the precedence settings, use the show command from within the config-prece context.

show

Example

```
ruckus(config-prece)# show
Precedence Policy:
  ID:
    2:
      Name= precedence1
      Description=
      Rules:
        1:
          Description=
          Attribute = vlan
          Order = AAA,Device Policy,WLAN
        2:
          Description=
          Attribute = rate-limit
          Order = AAA,Device Policy,WLAN

ruckus(config-prece)#
```

Configure Precedence Policy Rule Commands

Use the following commands to configure precedence policy rules.

rule

Creates a new Precedence Policy rule or modifies an existing entry rule. Enters the config-prece-rule context.

rule *NUMBER*

Syntax Description

rule

Create a rule and enter the rule creation context.

NUMBER

Enter the rule number (1-2). Each precedence policy can have up to two rules.

description

Sets the Precedence Policy rule description.

order *WORD*

Sets the order of a Precedence Policy rule. The default order is AAA, Device Policy, WLAN.

show

Displays precedence policy settings.

Example

```
ruckus(config)# prece precedence1
The Precedence Policy entry 'precedence1' has been created.
ruckus(config-prece)# rule 1
ruckus(config-prece-rule)# order "Device Policy" "WLAN" "AAA"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-prece-rule)# end
ruckus(config-prece)# show
Precedence Policy:
  ID:
    :
      Name= precedence1
      Description=
      Rules:
        1:
          Description=
          Attribute = vlan
          Order = Device Policy,WLAN,AAA
        2:
          Description=
          Attribute = rate-limit
          Order = AAA,Device Policy,WLAN

ruckus(config-prece)#
ruckus(config-prece)# end
The Precedence Policy entry has saved successfully.
Your changes have been saved.
```

description

To set the Precedence Policy rule description, use the following command:

description

Example

```
ruckus(config-precе-rule)# description "Default precedence policy"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-precе-rule)#
```

order

To set the order of the precedence policy, use the following command from within the config-precе-rule context.

order <WORD>

Syntax Description

<WORD>: Enter the order of Precedence Policy (for examle, "AAA" "Device Policy" "WLAN").

Example

```
ruckus(config-precе-rule)# order "AAA" "Device Policy" "WLAN"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-precе-rule)#
```

Configure Device Policy Commands

Use the device policy commands to configure access control and rate limiting policies based on client type. To run these commands, you must first enter the **config-dvc-pcy** context.

dvcpcy

To create a device policy or edit an existing device policy, enter the following command:

dvcpcy *WORD*

Syntax Description

show
Display device policy settings.

name *WORD*
Set the device policy entry name.

description *WORD*
Sets the device policy entry description.

mode *WORD*
Sets the device policy entry default mode (allow or deny).

no *NUMBER*
Delete a rule.

rule *NUMBER*
Create or modify a rule. Enter the config-dvc-pcy-rule context. You can create up to nine rules per access policy (one for each OS/Type).

Defaults

None.

Example

```
ruckus(config)# dvcpcy devpcy1
The Device Policy entry 'devpcy1' has been loaded. To save the Device Policy entry, type end or exit.
ruckus(config-dvc-pcy)# name device_policy_1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy)# description "deny iOS"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy)# rule 1
ruckus(config-dvc-pcy-rule)# type deny
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# devinfo "Apple IOS"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# vlan none
The command was executed successfully. To save the changes, type 'end' or 'exit'.

ruckus(config-dvc-pcy-rule)# rate-limit uplink 10 downlink 10
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# end
ruckus(config-dvc-pcy)# show
Device Policy:
  ID:
```

```
    1:
      Name= device_policy_1
      Description= deny iOS
      Default Mode= deny
      Rules:
        1:
          Description=
          OS/Type = Apple iOS
          Type= deny
          VLAN = Any
          Rate Limiting Uplink = 10.00Mbps
          Rate Limiting Downlink = 10.00Mbps

ruckus(config-dvc-pcy)# end
The Device Policy entry has saved successfully.
Your changes have been saved.
ruckus(config)# show dvcpcy
Device Policy:
  ID:
    2:
      Name= device_policy_1
      Description= deny iOS
      Default Mode= deny
      Rules:
        1:
          Description=
          OS/Type = Apple iOS
          Type= deny
          VLAN = Any
          Rate Limiting Uplink = 10.00Mbps
          Rate Limiting Downlink = 10.00Mbps


ruckus(config)#
```

no dvcpcy

To delete a device policy, use the following command:

no dvcpcy *WORD*

rule

Use the rule command from within the config-dvc-pcy context to create or edit a device policy rule and enter the config-dvc-pcy-rule context. Up to 9 rules can be created per device policy.

Syntax Description

rule

Create or edit a device policy rule. Enter the config-dvc-pcy-rule context.

description *WORD*

Set the Device Policy rule description.

dvctype *WORD*

Sets the device type of a Device Policy rule.

osvendor *WORD*

Sets the os vendor of a Device Policy rule.

type *WORD*

Set the device policy rule type (allow or deny).

vlan *NUMBER*

Set the VLAN ID to the number specified or “none.”

rate-limit uplink *NUMBER* downlink *NUMBER*

Set the rate limiting uplink and downlink speeds in mbps.

no rate-limit

Set rate limiting to disabled.

Example

```
ruckus(config-dvc-pcy)# rule 2
ruckus(config-dvc-pcy-rule)# description "rate limit gaming devices"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# devinfo "Gaming"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# type allow
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# vlan none
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# rate-limit uplink 0.1 downlink 0.1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-dvc-pcy-rule)# end
ruckus(config-dvc-pcy)# show
Device Policy:
  ID:
    2:
      Name= device_policy_1
      Description= deny iOS
      Default Mode= deny
      Rules:
        1:
          Description=
          OS/Type = Apple iOS
          Type= deny
          VLAN = Any
          Rate Limiting Uplink = 10.00Mbps
          Rate Limiting Downlink = 10.00Mbps
        2:
          Description= rate limit gaming devices
          OS/Type = Gaming
          Type= allow
          VLAN = Any
          Rate Limiting Uplink = 0.10Mbps
          Rate Limiting Downlink = 0.10Mbps

ruckus(config-dvc-pcy)#
```

Configure Application Policy Commands

Use the following commands to create or modify application policies.

app-policy

To create a new application policy or modify an existing policy, use the following command:

app-policy *WORD*

Syntax Description

app-policy: Creates a new Application Policy entry or modifies an existing entry.

<WORD>: Enter a name for the application policy.

Example

```
ruckus(config)# app-policy policy1
The Application Policy entry 'policy1' has been created.
ruckus(config-app-policy)#
```

no app-policy

To delete an Application Policy entry, use the following command:

no app-policy *WORD*

Example

```
ruckus(config)# no app-policy policy1
The Application Policy 'policy1' has been deleted.
ruckus(config)#
```

description

To set the description for the policy, use the following command:

description *<WORD>*

Example

```
ruckus(config-app-policy)# description "Block Facebook"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-app-policy)#
```

show

To display the application policy settings, use the show command from within the config-app-policy context.

show

Example

```
ruckus(config-app-policy)# show
Application Policy:
  ID:
    :
      Name= policy1
      Description=
      Rules:
        1:
          Rule Type= Denial Rules
          Application Type= System Defined
          Category= Social networks
          Application= Facebook

ruckus(config-app-policy)#
```

Configure Application Policy Rules

Use the following commands to configure application policy rules.

rule

Creates a new application policy rule or modifies an existing entry. Enters the *config-app-policy-rule* context.

rule *NUMBER*

Syntax Description

rule: Create or modify an application policy rule.

<NUMBER>: Enter a rule ID.

Example

```
ruckus(config-app-policy)# rule 1
ruckus(config-app-policy-rule)#
```

no rule

To delete a rule, use the following command:

no rule *NUMBER*

rule-type

To set the application policy rule type, use the following command:

rule-type<*WORD*>

Syntax Description

rule-type: Sets Application Policy rule type.

<WORD>: Enter rule type(Denial Rules | QoS | Rate Limiting).

Example

```
ruckus(config-app-policy-rule)# rule-type Denial Rules
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-app-denial-rule)#
```

application-type

To set the application type, use the following command:

application-type<*WORD*>

Syntax Description

application-type: Sets Application Policy rule application type.

<WORD>: Enter application type ("System Defined" or "Port base User Defined Application" or "IP base User Defined Application" or "Application name").

Example

```
ruckus(config-app-denial-rule)# application-type System Defined
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-app-denial-rule)#
```

category

To set the application category, use the following command:

category*<WORD>*

Syntax Description

category: Sets Application Policy rule application category.
<LIST>: Enter application name: [Instant messengers|Peer-to-peer networks|File sharing services and tools|Media streaming services|Email messaging services|VoIP services|Database tools|Online games|Management tools and protocols|Remote access terminals|Tunneling and proxy services|Investment platforms|Web services|Security update tools|Web instant messengers|Business tools|Network protocols (18)|Network protocols (19)|Network protocols (20)|Private protocols|Social networks]

Example

```
ruckus(config-app-denial-rule)# category Social networks
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-app-denial-rule)#
```

application

To set the application, use the following command:

application*<WORD>*

Syntax Description

category: Sets Application Policy rule application name.
<LIST>: |Classmates|Yik Yak|Facebook|Flickr|Hi5|LinkedIn|Livejournal|Twitter|Plurk|MySpace|Khan Academy|Pinterest|Tumblr|MeetMe|VKontakte|Odnoklassniki|Niwota|Tagged|PerfSpo t|Me2day|Mekusharim|Draugiem|Badoo|Meetup|Foursquare|Ning|i-Part/iPair|Dudu|M ig33|Hatena|eHarmony|Fotolog |Tencent QQ|Pixnet|Nk.Pl|Twoo|Plaxo|Cyworld|Jivesoftware|WordPress|FMyLife|Dcinside|Cl ass Chinaren|Bai Sohu|Yammer|Douban|Gamer|Xuite|ChatMe|Clien.net|AdultFriendFinder|Fling.com|D elicious|Mei.fm|Streetlife|Daum-blog|Naver-blog|Panoramio|Blogger|FC2|Yahoo Blog|Friendster|Ameba|Bebo social network|Kaixin|Orkut|Aol-Answers|CoolTalk social network|RenRen.com|TweetDeck|Hootsuite|Xing|Lokalisten|meinVZ/studiVZ|Viadeo| Tuenti|Hyves|Mixi.jp|Yahoo-mbga.jp|GREE|Netlog|2ch|LoveTheseCurves|Weibo|Goog le+|Skyrock|51.com|Jackd|Touch|Skout|Instagram|Jiayuan|Zoosk|DatingDNA|500px| iAround|pairs|Path|WeHeartIt|Fancy|Vine|SnappyTV|Miliao|After School|Weico|

Example

```
ruckus(config-app-denial-rule)# application Facebook
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-app-denial-rule)#
```

Configuring User-Defined Applications

Use the following commands to configure user-defined IP-based applications. Once created, user-defined applications can be controlled using the application policy commands.

user-app-ip

To configure IP-based user-defined application settings, and enter the config-user-app-ip context, use the following command:

user-app-ip

Example

```
ruckus(config)#  user-app-ip Application1
The User Defined Application entry Application1 has been created.
ruckus(config-user-app-ip)#
```

no user-app-ip

To delete a user-defined application entry, use the following command:

no user-app-ip*WORD*

Example

```
ruckus(config)# no user-app-ip Application1
The policy 'Application1' has been removed .
ruckus(config)#
```

abort

Exits the config-user-app-ip context without saving changes.

end

Saves changes, and then exits the config-user-app-ip context.

exit

Saves changes, and then exits the config-user-app-ip context.

destination-IP

To set the destination address of a user-defined application entry, use the following command:

destination-IP *IP-ADDR*

Example

```
ruckus(config-user-app-ip)# destination-IP 192.168.40.3
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-ip)#
```

netmask

To set the netmask of a user-defined application, use the following command:

netmask *IP-ADDR*

Example

```
ruckus(config-user-app-ip)# netmask 255.255.255.0
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-ip)#
```

destination-port

To set the destination port of a user-defined Application, use the following command:

destination-port *NUMBER*

Example

```
ruckus(config-user-app-ip)# destination-port 883
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-ip)#
```

protocol

To set the protocol of a user-defined application, use the following command:

protocol *WORD*

Example

```
ruckus(config-user-app-ip)# protocol tcp
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-ip)#
```

application-name

To set the name the application, use the following command:

application *WORD*

Example

```
ruckus(config-user-app-ip)# application-name Blocked-Application-1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-ip)#
```

Configuring User-Defined Applications Based on Port Mapping

Use the following commands to configure user-defined applications based on port mapping. Once configured, these user-defined applications can be controlled using the application policy commands.

user-app-port

Configures port-based user-defined application settings. Enters config-user-app-port context.

Example

```
ruckus(config)# user-app-port Application2
The Application Port Mapping entry Application2 has been created.
ruckus(config-user-app-port)#
```

no user-app-port

To delete a port-based user-defined application, use the following command:

no user-app-port *WORD*

Example

```
ruckus(config)# no user-app-port userapp1
The policy 'userapp1' has been removed .
ruckus(config)#
```

abort

Exits the config-user-app-port context without saving changes.

end

Saves changes, and then exits the config-user-app-port context.

exit

Saves changes, and then exits the config-user-app-port context.

port

To set the Port of the port-based application, use the following command:

port *NUMBER*

Example

```
ruckus(config-user-app-port)# port 443
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-port)#
```

protocol

To set the Protocol for the port-based user-defined Application, use the following command:

protocol *WORD*

Example

```
ruckus(config-user-app-port)# protocol tcp
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-port)#
```

application-name

To set the application name, use the following command:

application-name<*WORD*>

Example

```
ruckus(config-user-app-port)# application-name Application2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-user-app-port)#
```

Configure URL Filtering Settings

Use the following commands to configure URL Filtering settings.

url-filtering

To configure a URL Filtering Profile and enter the *config-url-filtering* context, use the following command:

url-filtering*NAME*

Example

```
ruckus(config)# url-filtering filter1
The Url Filtering "filter1" has been created.
ruckus(config-url-filtering)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  abort                 Exits the config-url-filtering context without saving changes.
  end                   Saves changes, and then exits the config-url-filtering-xxx context.
  exit                  Saves changes, and then exits the config-url-filtering-xxx context.
  show                  Displays the current Url Filtering settings.
  no                    Contains commands that can be executed from within the context.
  description <WORD>    Sets the Policy entry description.
  filtering-level <WORD>
                        Selects a filtering categories level.
  blocked-category <list>
                        Selects the blocked categories only for "CUSTOM" (for example: Abortion,
                        Abused Drugs, Auctions).
  create-blacklist <domain>
                        Creates a new Blacklist.
  delete-blacklist <domain>
                        Deletes a exist Blacklist.
  create-whitelist <domain>
                        Creates a new Wlacklist.
  delete-whitelist <domain>
                        Deletes a exist Wlacklist.
  google-safe-search    Enables Google Safe Search.
  google-ip <IP-ADDR>   Configures Google Safe Search Virtual IP(216.239.38.120).
  youtube-safe-search   Enables YouTube Safe Search.
  youtube-ip <IP-ADDR>
                        Configures YouTube Safe Search Virtual IP(216.239.38.120).
  bing-safe-search      Enables Bing Safe Search.
  bing-ip <IP-ADDR>     Configures Bing Safe Search Virtual IP(204.79.197.220).
ruckus(config-url-filtering)#
```

no url-filtering

To delete a URL Filtering Profile, use the following command:

no url-filtering*NAME*

Example

```
ruckus(config)# no url-filtering filter1
The policy 'filter1' has been removed .
ruckus(config)#
```

description

To set the URL Filtering policy entry description, use the following command:

description *<WORD>*

Example

```
ruckus(config-url-filtering)# description "Filter 1"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

filtering-level

To select a filtering level category, use the following command:

filtering-level*NO_ADULT* | *CLEAN_AND_SAFE* | *CHILD_AND_STUDENT_FRIENDLY* | *STRICT* | *CUSTOM*

Example

```
ruckus(config-url-filtering)# filtering-level NO_ADULT
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

blocked-category

To select a blocked category (only for "CUSTOM" for example: Abortion, Abused Drugs, Auctions), use the following command:

blocked-category*Abortion*, *Abused Drugs*, *Adult and Pornography*, *Alcohol and Tobacco*, *Auctions*, *Bot Nets*, *Business and Economy*, *Cheating*, *Computer and Internet Info*, *Computer and Internet Security*, *Confirmed SPAM Sources*, *Content Delivery Networks*, *Cult and Occult*, *Dating*, *Dead Sites*, *Dynamic Comment*, *Educational Institutions*, *Entertainment and Arts*, *Fashion and Beauty*, *Financial Services*, *Food and Dining*, *Gambling*, *Games*, *Government*, *Gross*, *Hacking*, *Hate and Racism*, *Health and Medicine*, *Home and Garden*, *Hunting and Fishing*, *Illegal*, *Image and Video Search*, *Internet Communications*, *Internet Portals*, *Job Search*, *Keyloggers and Monitoring*, *Kids*, *Legal*, *Local Information*, *Malware Sites*, *Marijuana*, *Military*, *Motor Vehicles*, *Music*, *News and Media*, *Nudity*, *Online Greeting cards*, *Open HTTP Proxies*, *Parked Domains*, *Pay to Surf*, *Peer to Peer*, *Personal Storage*, *Personal sites and Blogs*, *Philosophy and Political Advocacy*, *Phishing and Other Frauds*, *Private IP Addresses*, *Proxy Avoidance and Anonymizers*, *Questionable*, *Real Estate*, *Recreation and Hobbies*, *Reference and Research*, *Religion*, *SPAM URLs*, *Search Engines*, *Sex Education*, *Shareware and Freeware*, *Shopping*, *Social Networking*, *Society*, *Sports*, *Spyware and Adware*, *Stock and Advice Tools*, *Streaming Media*, *Swimsuits & Intimate Apparel*, *Training and Tools*, *Translation*, *Travel*, *Unconfirmed SPAM Sources*, *Violence*, *Weapons*, *Web Advertisements*, *Web Hosting*, *Web based Email*

Example

```
ruckus(config-url-filtering)# blocked-category Violence
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

create-blacklist

To create a new domain blacklist, use the following command:

create-blacklist*<domain>*

Example

```
ruckus(config-url-filtering)# create-blacklist facebook.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

delete-blacklist

To delete a domain blacklist, use the following command:

delete-blacklist*<domain>*

Example

```
ruckus(config-url-filtering)# delete-blacklist facebook.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

create-whitelist

To create a domain whitelist, use the following command:

create-whitelist*<domain>*

Example

```
ruckus(config-url-filtering)# create-whitelist ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

delete-whitelist

To delete a domain whitelist, use the following command:

delete-whitelist*<domain>*

Example

```
ruckus(config-url-filtering)# delete-whitelist ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

google-safe-search

To enable Google Safe Search, use the following command:

google-safe-search

Example

```
ruckus(config-url-filtering)# google-safe-search
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

no google-safe-search

To disable Google Safe Search, use the following command:

no google-safe-search

Example

```
ruckus(config-url-filtering)# no google-safe-search
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

google-ip

To configure Google Safe Search Virtual IP (default: 216.239.38.120), use the following command:

google-ip*IP Address*

Defaults

216.239.38.120

google-ip*IP Address*

Example

```
ruckus(config-url-filtering)# google-ip 216.239.38.120
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

youtube-safe-search

To enable Youtube Safe Search, use the following command:

youtube-safe-search

Example

```
ruckus(config-url-filtering)# youtube-safe-search
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

no youtube-safe-search

To disable Youtube Safe Search, use the following command:

no youtube-safe-search

Example

```
ruckus(config-url-filtering)# no youtube-safe-search
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

youtube-ip

To configure the YouTube Safe Search Virtual IP (default: 216.239.38.120), use the following command:

youtube-ip *IP-ADDR*

Defaults

216.239.38.120

Example

```
ruckus(config-url-filtering)# youtube-ip 216.239.38.120
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

bing-safe-search

To enable Bing Safe Search, use the following command:

bing-safe-search

Example

```
ruckus(config-url-filtering)# bing-safe-search
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

no bing-safe-search

To disable Bing Safe Search, use the following command:

no bing-safe-search

Example

```
ruckus(config-url-filtering)# no bing-safe-search
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

bing-ip

To configure the Bing Safe Search Virtual IP (default: 204.79.197.220), use the following command:

bing-ip *IP-ADDR*

Defaults

204.79.197.220

Example

```
ruckus(config-url-filtering)# bing-ip 204.79.197.220
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-url-filtering)#
```

show

To display the current URL Filtering settings, use the following command:

show

Example

```
ruckus(config-url-filtering)# show
    :
      Url Name: filter1
      Filter Type: CUSTOM
      Number of Blocked Categories: 1
      Blocked Categories:
              Violence
      Blacklist-Domains:
              cisco.com
              facebook.com
      Whitelist-Domains:
              ruckuswireless.com
      Google Safe Search: Disabled
      YouTube Safe Search VIP: 216.239.38.120
      Bing Safe Search VIP: 204.79.197.220
ruckus(config-url-filtering)#
```

Configure Whitelist Commands

Use the whitelist command to create a new client isolation whitelist or modify an existing whitelist, and enter the **config-whitelist** context.

whitelist

To create a new white list entry or modify an existing entry, use the following command:

whitelist *WORD*

no whitelist

To delete a whitelist entry, use the following command:

no whitelist *WORD*

name

To set the White List entry name, use the following command:

name *WORD*

description

To set the description of the whitelist entry, use the following command:

description *WORD*

Configuring Whitelist Rules

Use the rule command from within the config-whitelist context to create a new rule or modify an existing rule, and enter the **config-whitelist-rule** context.

rule

To create a new whitelist rule or modify an existing rule, use the following command:

rule *NUMBER*

no rule

To delete a whitelist rule, use the following command:

no rule *NUMBER*

description

To set the White List rule description, use the following command:

description *WORD*

mac

To set the MAC address, use the following command (format: XX:XX:XX:XX:XX:XX):

mac *MAC*

ip

To set the IP address, use the following command (format: 172.18.110.12).

ip *IP*

Configure Band Balancing Commands

Client Band Balancing attempts to balance the number of clients across AP radios, allowing configurable thresholds for ratio of clients on the 2.4 vs. 5 GHz radio bands. Use the band-balancing commands to configure the controller's band balancing settings. To run these commands, you must first enter the **config-band-balancing** context.

band-balancing

To enable load-balancing and enter the config-band-balancing context, use the following command:

band-balancing

abort

Exits the band balancing context without saving changes.

end

Saves changes, and then exits the band balancing context.

exit

Saves changes, and then exits the band balancing context.

quit

Exits the band balancing context without saving changes.

enable

To enable band balancing, use the following command:

enable

Example

```
ruckus(config-band-balancing)# enable
The band balancing settings have been updated.
ruckus(config-band-balancing)#
```

disable

To disable band balancing, use the following command:

disable

Example

```
ruckus(config-band-balancing)# disable
The band balancing settings have been updated.
ruckus(config-band-balancing)#
```

Proactive

To enable or disable Proactive Band Balancing, use the following command:

Proactive <NUMBER>

Syntax

<NUMBER>: 0 for disable, 1 for enable

Example

```
ruckus(config-band-balancing)# proactive 0
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-band-balancing)#
```

percent-2.4G <NUMBER>

To configure the percentage of clients on the 2.4 GHz band, use the following command:

percent-2.4G <NUMBER>

Defaults

25

Example

```
ruckus(config-band-balancing)# percent-2.4G 25
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-band-balancing)#
```

show

Displays information about Band balancing.

Example

```
ruckus(config-band-balancing)# show
Band Balancing:
  Enable= 1
  Percent of clients on 2.4G band: 25%
  Proactive Status= 1

ruckus(config-band-balancing)#
```

Configure Load Balancing Commands

Client Load Balancing attempts to balance the number of clients across APs, per radio band. Use the **load-balancing** commands to configure the controller's load balancing settings. To run these commands, you must first enter the **config-load-balancing** context.

load-balancing

To enable load-balancing and enter the config-load-balancing context, use the following command:

load-balancing

Example

```
ruckus(config)# load-balancing
ruckus(config-load-balancing)#
```

adj-threshold

To configure the adjacent threshold for load balancing, use the following command:

adj-threshold [**wifi0** | **wifi1**] *NUMBER*

Syntax Description

adj-threshold

Configure the adjacent threshold for load balancing

wifi0, wifi1

Configure this interface

NUMBER

Set the adjacent threshold value (1~100)

Defaults

Wifi0: 50

Wifi1: 43

Example

```
ruckus(config-load-balancing)# enable wifi0
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)# adj-threshold wifi0 25
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)# show
Load Balancing:
  Radio 0:
      Status= Enabled
      AdjacentThreshold= 25
      WeakBypass= 33
      StrongBypass= 55
      ActivationThreshold= 10
      NewTrigger= 3
      Headroom= 3
```

```
  Radio 1:
      Status= Disabled
      AdjacentThreshold= 43
      WeakBypass= 35
      StrongBypass= 55
      ActivationThreshold= 10
      NewTrigger= 3
      Headroom= 3


ruckus(config-load-balancing)#
```

weak-bypass

To configure the weak bypass for load balancing, use the following command:

weak-bypass [**wifi0** | **wifi1**] *NUMBER*

Syntax Description

weak-bypass
: Configure the weak bypass for load balancing

wifi0, wifi1
: Configure this interface

NUMBER
: Set the weak-bypass value (1~100)

Defaults

wifi0: 33

wifi1: 35

Example

```
ruckus(config-load-balancing)# weak-bypass wifi0 33
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)#
```

strong-bypass

To configure the strong bypass for load balancing, use the following command:

strong-bypass [**wifi0** | **wifi1**] *NUMBER*

Syntax Description

strong-bypass
: Configure the strong bypass for load balancing

wifi0, wifi1
: Configure this interface

NUMBER
: Set the strong-bypass value (1~100)

Defaults

55

Example

```
ruckus(config-load-balancing)# strong-bypass wifi0 55
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)#
```

act-threshold

To configure the activation threshold for load balancing, use the following command:

act-threshold [**wifi0** | **wifi1**] *NUMBER*

Syntax Description

act-threshold

Configure the activation threshold for load balancing.

wifi0, wifi1

Configure this interface.

NUMBER

Set the activation threshold value (1~100).

Defaults

10

Example

```
ruckus(config-load-balancing)# act-threshold wifi0 50
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)#
```

new-trigger

To configure new trigger threshold (1-100), use the following command:

new-trigger [**wifi0** | **wifi1**] *NUMBER*

Syntax Description

new-trigger

Configure a new trigger threshold for the specified interface.

wifi0, wifi1

Configure this interface.

NUMBER

Set the new trigger threshold value (1~100).

Defaults

3

Example

```
ruckus(config-load-balancing)# new-trigger wifi0 3
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)#
```

headroom

To configure headroom settings for the specified interface, use the following command:

headroom [**wifi0** | **wifi1**] *NUMBER*

Syntax Description

headroom

Configure headroom for the specified interface.

wifi0, wifi1

Configure this interface.

NUMBER

Set the headroom value (1~100).

Defaults

3

Example

```
ruckus(config-load-balancing)# headroom wifi0 3
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-load-balancing)#
```

disable wifi0

Disable wifi0 load balancing.

disable wifi1

Disable wifi1 load balancing.

enable wifi0

Enable wifi0 load balancing.

enable wifi1

Enable wifi1 load balancing.

show

To display the current service settings, use the following command:

show

Syntax Description

show

Display the current service settings

Defaults

None.

Example

```
ruckus(config-load-balancing)# show
Load Balancing:
  Radio 0:
      Status= Enabled
      AdjacentThreshold= 50
      WeakBypass= 33
      StrongBypass= 55
      ActivationThreshold= 10
      NewTrigger= 3
      Headroom= 3

  Radio 1:
      Status= Disabled
      AdjacentThreshold= 43
      WeakBypass= 35
      StrongBypass= 55
      ActivationThreshold= 10
      NewTrigger= 3
      Headroom= 3


ruckus(config-load-balancing)#
```

Configure STP Commands

Both Ethernet ports are one logical interface. They are designed to provide high availability connections to separate switches and do not provide dual-port ISL channel bonding. Switches should use STP to block one path. The default is “no stp”.

stp

To enable Spanning Tree Protocol, use the following command:

stp

no stp

To disable Spanning Tree Protocol, use the following:

no stp

Configure System Commands

Use the sys or system command to configure the controller's system settings, including its host name, FlexMaster server, NTP server, SNMP, and QoS settings. To run these commands, you must first enter the **config-sys** context.

system

To enter the config-sys context and configure system settings, use the following command:

system

Example

```
ruckus(config)# system
ruckus(config-sys)#
```

dot11-country-code

To set the controller's country code, use the following command:

dot11-country-code *COUNTRY-CODE {arguments}*

Syntax Description

dot11-country-code
Configure the controller's country code setting

COUNTRY-CODE
Set the country code to this value

channel-mode
Contains commands that can be executed from within the context

allow-indoor
Allows ZoneFlex Outdoor APs to use channels regulated as indoor use-only

not-allow-indoor
Disallows ZoneFlex Outdoor APs to use channels regulated as indoor use-only

channel-optimization
Set channel optimization type (compatibility, interoperability, performance)

Defaults

None.

Example

To set the country code to US, enter the following command:

```
ruckus# configruckus(config)# system
ruckus(config-sys)# dot11-country-code US
The country code settings have been updated.
ruckus(config-sys)#
```

hostname

To set the system hostname, use the following command:

hostname

Syntax Description

hostname

Set the controller's system hostname

Defaults

None

Example

```
ruckus(config-sys)# hostname ruckus-xjoe
The system identity/hostname settings have been updated.
```

Interface Commands

Use the interface commands to configure the controller's IP address and VLAN settings. To run these commands, you must first enter the **config-sys-if** context.

interface

To enter the config-sys-if context and configure IP address and VLAN settings, use the following command:

interface

Example

```
ruckus(config-sys)# interface
ruckus(config-sys-if)#
```

ip enable

To enable IPv4 addressing, use the following command:

ip enable

ip route gateway

To set the controller's gateway IP address, use the following command:

ip route gateway *GATEWAY-ADDR*

Syntax Description

ip route gateway
: Configure the controller's gateway IP address

GATEWAY-ADDR
: Set the controller' gateway IP address to this value

Defaults

None.

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# interface
ruckus(config-sys-if)# ip route gateway 192.168.0.1
The command was executed successfully.
```

ip name-server

To set the controller's DNS servers, use the ip name-server command. Use a space to separate the primary and secondary DNS servers.

ip name-server *DNS-ADDR* [*DNS-ADDR*]

Syntax Description

ip name-server

Configure the controller's DNS server address or addresses

DNS-ADDR

Set the DNS server address to this value. If entering primary and secondary DNS server addresses, use a space to separate the two addresses.

Defaults

192.168.0.1

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# interface
ruckus(config-sys-if)# ip name-server 192.168.0.1
The command was executed successfully.
```

ip addr

To set the controller's IP address and netmask, use the following command:

ip addr *IP-ADDR NET-MASK*

Use a space to separate the IP address and netmask.

Syntax Description

ip addr

Configure the controller's IP address and netmask

IP-ADDR

Set the controller's IP address to this value

NET-MASK

Set the controller's netmask to this value

Defaults

IP address: 192.168.0.2

Subnet mask: 255.255.255.0

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# interface
ruckus(config-sys-if)# ip addr 192.168.0.2 255.255.255.0
The command was executed successfully.
```

ip mode

To set the controller's IP address mode, use the following command:

ip mode [**dhcp** | **static**]

Syntax Description

ip mode
: Configure the controller's IP address mode

dhcp
: Set the controller's IP address mode to DHCP

static
: Set the controller's IP address mode to static

Defaults

None.

Example

To set the controller's IP address mode to DHCP, enter the following command:

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# interface
ruckus(config-sys-if)# ip mode dhcp
The command was executed successfully.
```

show

To display the current management interface settings, use the following command:

show

Syntax Description

show
: Display the current management interface settings

Defaults

None.

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# interface
ruckus(config-sys-if)# show
Protocol Mode= IPv4-Only
Device IP Address:
Mode= Manual
IP Address= 192.168.11.100
Netmask= 255.255.255.0
```

```
Gateway Address= 192.168.11.1
Primary DNS= 192.168.11.1
Secondary DNS= 168.95.1.1

Management VLAN:
Status= Disabled
VLAN ID=

ruckus(config-sys-if)#
```

ipv6 enable

To enable IPv6 addressing, use the following command:

ipv6 enable

ipv6 route gateway

To set the controller's IPv6 gateway addressing, use the following command:

ipv6 route gateway *GATEWAY-ADDR*

ipv6 name-server

To set the IPv6 DNS server, use the following command:

name-server *DNS-ADDR* [*DNS-ADDR*]

ipv6 addr

To set the IPv6 addressing, use the following command:

addr *IPv6-ADDR IPv6-PREFIX*

ipv6 mode

To set the IPv6 address mode, use the following command:

ipv6 mode [**auto** | **manual**]

vlan

If the ZoneDirector is on a tagged Access VLAN, to set the VLAN ID, use the following

command:

vlan *NUMBER*

no ip

To disable IPv4 addressing, use the following command:

no ip

no ipv6

To disable IPv6 addressing, use the following command:

no ipv6

NTP Commands

Use the following commands to configure Network Time Protocol (NTP) server settings.

ntp

To enable the NTP client, use the following command:

ntp *IP-ADDR/DOMAIN-NAME*

Syntax Description

ntp

Enable the NTP client

IP-ADDR/DOMAIN-NAME

Set the NTP server address to this IP address/domain name

Defaults

None.

Example

```
ruckus(config-sys)# ntp 192.168.2.21
The NTP settings have been updated.
ruckus(config-sys)# ntp sohu.com
The NTP settings have been updated.
```

no ntp

To disable the NTP client, use the following command:

no ntp

Syntax Description

no ntp

Disable the NTP client on the controller.

Defaults

Enabled. The default NTP server addresss is ntp.ruckuswireless.com.

Example

```
ruckus(config-sys)# no ntp
The NTP settings have been updated.
```

Timezone Commands

Use the following commands to configure system time zone settings, including user-defined time zones and Daylight Savings Time (DST) customization.

system-timezone

To configure time zone settings, use the following command:

system-timezone <*TIMEZONE*>

Defaults

GMT+0

Example

```
ruckus(config-sys)# system-timezone GMT+8
The timezone settings have been updated.
ruckus(config-sys)#
```

userdefined-timezone

To configure user-defined time zone, use the following command:

userdefined-timezone <*TIMEZONE*>

Defaults

None

Example

```
ruckus(config-sys)# userdefined-timezone GMT+8:30
The timezone settings have been updated.
ruckus(config-sys)#
```

no userdefined-timezone

To configure user-defined time zone, use the following command:

userdefined-timezone <*TIMEZONE*>

Defaults

None

Example

```
ruckus(config-sys)# userdefined-timezone GMT+8:30
The timezone settings have been updated.
ruckus(config-sys)#
```

system-dst

To configure system Daylight Savings Time settings, use the following command:

system-dst [enable | disable]

Defaults

Disabled

Example

```
ruckus(config-sys)# system-dst enable
The timezone settings have been updated.
ruckus(config-sys)#
```

no system-dst

To disable the system Daylight Savings Time settings, use the following command:

no system-dst

Defaults

Disabled

Example

```
ruckus(config-sys)# no system-dst
The timezone settings have been updated.
ruckus(config-sys)#
```

userdefined-dst

To configure user-defined Daylight Savings Time settings, use the following command:

userdefined-dst <DST>

Defaults

Disabled

Example

```
ruckus(config-sys)# userdefined-dst M1.1.0/00,M1.2.0/00
The timezone settings have been updated.
ruckus(config-sys)#
```

no userdefined-dst

To delete the user-defined Daylight Savings Time settings, use the following command:

no userdefined-dst

Defaults

Disabled

Example

```
ruckus(config-sys)# no userdefined-dst
The timezone settings have been updated.
ruckus(config-sys)#
```

FTP Commands

Use the following commands to configure FTP settings.

ftp

Enable FTP server.

no ftp

Disable FTP server.

ftp-anon

To enable FTP anonymous access, use the following command:

ftp-anon

no ftp-anon

To disable FTP anonymouse access, use the following command:

no ftp-anon

Smart Redundancy Commands

To configure the Smart Redundancy settings, you must first enter the config-sys-smart-redundancy context from within the **config-sys** context.

smart-redundancy

To enter the config-sys-smart-redundancy context and configure Smart Redundancy settings, use the following command:

smart-redundancy

Syntax Description

smart-redundancy
: Configures smart redundancy settings.

abort
: Exits the smart redundancy context without saving changes.

end
: Saves changes, and then exits the smart redundancy context.

exit
: Saves changes, and then exits the smart redundancy context.

quit
: Exits the smart redundancy context without saving changes

peer-addr *IP-ADDR*
: Sets the peer's IP/IPv6 address.

secret *WORD*
: Sets the shared secret to the specified secret.

show
: Displays information about smart redundancy.

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# smart-redundancy
ruckus(config-sys-smart-redundancy)# peer-addr 192.168.40.101
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sys-smart-redundancy)# secret secret
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sys-smart-redundancy)# show
Smart Redundancy:
  Status= Disabled
  Peer IP/IPv6 Address=
  Shared Secret=

ruckus(config-sys-smart-redundancy)# end
The smart redundancy settings have been updated.
Your changes have been saved.
ruckus(config-sys)#
```

no smart-redundancy

Disables the smart redundancy settings.

Example

```
ruckus(config-sys)# no smart-redundancy
The smart redundancy settings have been updated.
ruckus(config-sys)#
```

Management Interface Commands

To configure management interface settings, you must first enter the config-sys-mgmt-if context from the **config-sys** context.

mgmt-if

To enter the config-sys-mgmt-if context and configure the management interface settings, use the following command:

mgmt-if

Syntax Description

mgmt-if
Configure the management interface settings

Defaults

None.

Example

```
ruckus(config-sys)# mgmt-if
ruckus(config-sys-mgmt-if)#
```

no mgmt-if

To disable the management interface, use the following command:

no mgmt-if

Syntax Description

no mgmt-if
Disable the management interface

Defaults

None.

Example

```
ruckus(config-sys)# no mgmt-if
The management interface has been updated.
```

ip addr

To set the management interface IP address, use the following command:

ip addr *IP-ADDR NET-MASK*

gateway

To set the management interface gateway address, use the following command:

gateway *GATEWAY-ADDR*

no gateway

To disable the management interface gateway address, use the following command:

no gateway

vlan

To enable the management VLAN and set the VLAN ID, use the following command:

vlan *NUMBER*

mgmt-if-ipv6

To enter the config-sys-mgmt-if-ipv6 context and configure the management interface settings, use the following command:

mgmt-if-ipv6

Syntax Description

mgmt-if-ipv6
Configure the management interface settings

Defaults

None.

Example

```
ruckus(config-sys)# mgmt-if-ipv6
ruckus(config-sys-mgmt-if-ipv6)#
```

no mgmt-if-ipv6

To disable the management interface, use the following command:

no mgmt-if-ipv6

Syntax Description

no mgmt-if-ipv6
Disable the management interface

Defaults

None.

Example

```
ruckus(config-sys)# no mgmt-if-ipv6
The management interface has been updated.
```

ipv6 addr

To set the management interface IP address, use the following command:

ip addr *IPv6-ADDR IPv6-PREFIX*

gateway

To set the management interface gateway address, use the following command:

gateway *GATEWAY-ADDR*

no gateway

To disable the management interface gateway address, use the following command:

no gateway

vlan

To enable the management VLAN and set the VLAN ID, use the following command:

vlan *NUMBER*

flexmaster

To set the FlexMaster server address and the periodic inform interval, use the following command:

flexmaster *IP-ADDR/DOMAIN-NAME* interval *NUMBER*

Syntax Description

flexmaster
: Configure the FlexMaster server settings

IP-ADDR/DOMAIN-NAME
: Set to this URL or IP address

interval
: Configure the periodic inform interval

NUMBER
: Set to this interval (in minutes)

Defaults

None.

Example

```
ruckus(config-sys)# flexmaster http://172.18.30.118 interval 30
The FlexMaster Management settings have been updated.
```

no flexmaster

To disable FlexMaster management of the controller, use the following command:

no flexmaster

Syntax Description

no flexmaster

Disable FlexMaster management of the controller

Defaults

None

Example

```
ruckus(config-sys)# no flexmaster
FlexMaster Management has been disabled.
```

northbound

To enable northbound portal interface support and set the northbound portal password, use the following command:

northbound password *WORD*

Defaults

Disabled

Example

```
ruckus(config-sys)# northbound password pass123
The northbound portal interface settings have been updated.
```

no northbound

To disable northbound portal interface support, use the following command:

no northbound

Example

```
ruckus(config-sys)# no northbound
Northbound portal interface has been disabled.
```

SNMPv2 Commands

Use the following commands to configure SNMPv2 settings. To use these commands, you must first enter the **config-sys-snmpv2** context.

snmpv2

To configure the SNMPv2 settings, use the following command:

snmpv2

Executing this command enters the config-sys-snmpv2 context.

Syntax Description

snmpv2
Configure the SNMPv2 settings

abort
Exits the config-sys-snmpv2 context without saving changes.

end
Saves changes, and then exits the config-sys-snmpv2 context.

exit
Saves changes, and then exits the config-sys-snmpv2 context.

quit
Exits the config-sys-snmpv2 context without saving changes.

no access-v3
Disables special MIB node for customer's kt.

access-v3
Enables special MIB node for customer's kt.

contact *WORD*
Enables SNMPV2 agent and sets the system contact.

location *WORD*
Enables SNMPV2 agent and sets the system location.

ro-community *WORD*
Enables SNMPV2 agent and sets the RO community name.

rw-community *WORD*
Enables SNMPV2 agent and sets the RW community name.

show
Displays SNMPV2 agent and SNMP trap settings.

Defaults

SNMP Agent:

Status= Enabled

Contact= https://support.ruckuswireless.com/contact_us

Location= 350 West Java Dr. Sunnyvale, CA 94089 US

RO Community= public

RW Community= private

SNMP Trap:

Format= Version2

Status= Disabled

Support-access-V3:

Status= Disabled

Example

```
ruckus(config-sys)# snmpv2
ruckus(config-sys-snmpv2)#
```

contact

To enable SNMPv2 agent and set the system contact, use the following command:

contact *WORD*

location

To enable SNMPv2 agent and set the system location, use the following command:

location *WORD*

ro-community

To set the read-only (RO) community name, use the following command:

ro-community *WORD*

Syntax Description

ro-community
: Configure the read-only community name

WORD
: Set the read-only community name to this value

Defaults

public

Example

```
ruckus(config-sys-snmpv2)# ro-community private-123
The command was executed successfully
```

rw-community

To set the read-write (RW) community name, use the following command:

rw-community *WORD*

This command must be entered from within the snmp-agent context.

Syntax Description

rw-community

Configure the read-write community name

WORD

Set the read-write community name to this value

Defaults

private

Example

```
ruckus(config-sys-snmpv2)# rw-community private-123
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

show

To display SNMPv2 agent and SNMP trap settings, use the show command.

Example

```
ruckus(config-sys-snmpv2)# show
SNMP Agent:
  Status= Enabled
  Contact= https://support.ruckuswireless.com/contact_us
  Location= 350 West Java Dr. Sunnyvale, CA 94089 US
  RO Community= public
  RW Community= private

SNMP Trap:
  Format= Version2
  Status= Disabled

Support-access-V3:
  Status= Disabled
```

snmpv2-ap

To enable SNMP AP notification, use the following command:

snmpv2-ap

Example

```
ruckus(config-sys)# snmpv2-ap
The SNMP v2 agent settings have been updated.
ruckus(config-sys)#
```

no snmpv2-ap

To disable SNMP AP notification, use the following command:

no snmpv2-ap

Example

```
ruckus(config-sys)# no snmpv2-ap
The SNMP v2 agent settings have been updated.
ruckus(config-sys)#
```

SNMPv3 Commands

Use the following commands to configure SNMPv3 settings. To use these commands, you must first enter the **config-sys-snmpv3** context.

snmpv3

To configure the SNMPv3 settings, use the following command:

snmpv3

Executing this command enters the config-sys-snmpv3 context.

Syntax Description

snmpv3
Configure the SNMPv3 settings

abort
Exits the config-sys-snmpv3 context without saving changes.

end
Saves changes, and then exits the config-sys-snmpv3 context.

exit
Saves changes, and then exits the config-sys-snmpv3 context.

quit
Exits the config-sys-snmpv3 context without saving changes.

ro-user *WORD*
Contains commands that can be executed from within the context.

ro-user *WORD* MD5 *WORD*
Contains commands that can be executed from within the context.

ro-user *WORD* MD5 *WORD* DES *WORD*
Sets the privacy phrase of DES for SNMPV3.

ro-user *WORD* MD5 *WORD* AES *WORD*
Sets the privacy phrase of AES for SNMPV3.

ro-user *WORD* MD5 *WORD* None
Sets the privacy to None for SNMPV3.

ro-user *WORD* SHA *WORD*
Contains commands that can be executed from within the context.

ro-user *WORD* SHA *WORD* DES *WORD*
Sets the privacy phrase of DES for SNMPV3.

ro-user *WORD* SHA *WORD* AES *WORD*
Sets the privacy phrase of AES for SNMPV3.

ro-user *WORD* SHA *WORD*; None
Sets the privacy to None for SNMPV3.

rw-user *WORD*
Contains commands that can be executed from within the context.

rw-user *WORD* MD5 *WORD*
Contains commands that can be executed from within the context.

rw-user *WORD* MD5 *WORD* DES *WORD*
Sets the privacy phrase of DES for SNMPV3.

rw-user *WORD* MD5 *WORD* AES *WORD*
Sets the privacy phrase of AES for SNMPV3.

rw-user *WORD* MD5 *WORD* None
Sets the privacy to None for SNMPV3.

rw-user *WORD* SHA *WORD*
Contains commands that can be executed from within the context.

rw-user *WORD* SHA *WORD* DES *WORD*
Sets the privacy phrase of DES for SNMPV3.

rw-user *WORD* SHA *WORD* AES *WORD*
Sets the privacy phrase of AES for SNMPV3.

rw-user *WORD* SHA *WORD* None
Sets the privacy to None for SNMPV3.

show
Displays SNMPV3 agent and SNMP trap settings.

Defaults

SNMPV3 Agent:

Status= Disabled

Ro:

User=

Authentication Type= MD5

Authentication Pass Phrase=

Privacy Type= DES

Privacy Phrase=

Rw:

User=

Authentication Type= MD5

Authentication Pass Phrase=

Privacy Type= DES

Privacy Phrase=

SNMP Trap:

Format= Version3

Status= Disabled

snmp-trap-format

To set the SNMP trap format to SNMPV2 or SNMPV3, use the following command:

snmp-trap-format [**SNMPv2** | **SNMPv3**]

Syntax Description

snmp-trap-format
: Set the SNMP trap format

[**SNMPv2** | **SNMPv3**]
: Set to either SNMPv2 or SNMPv3

Defaults

SNMPv2

Example

```
ruckus(config-sys)# snmp-trap-format SNMPV2
The SNMP trap settings have been updated.
```

snmpv2-trap

To enable the SNMPv2 trap and set the IP address of the trap server, use the following command:

snmpv2-trap *NUMBER IP/IPv6-ADDR*

Syntax Description

snmpv2-trap
: Enable the SNMPv2 trap and set the trap server's IP address

NUMBER
: Assign the trap receiver ID (1-4)

IP/IPv6-ADDR
: Set the trap receiver IP address

Defaults

None

Example

```
ruckus(config-sys)# snmpv2-trap 1 192.168.10.22
The SNMP trap settings have been updated.
```

snmpv3-trap

To enable and configure the SNMPv3 trap parameters, use the following command:

snmpv3-trap *user_name snmp_trap_server_ip* [**MD5** | **SHA**] *auth_pass_phrase* [**DES** *privacy_phrase* |**AES** *privacy_phrase* | **None**]

Syntax Description

snmpv3-trap
Enable the SNMPv3 trap and configure the trap parameters

user_name
Trap user name

snmp_trap_server_ip
Trap server IP address

[**MD5** | **SHA**]
Authentication method

auth_pass_phrase
Authentication passphrase

[**DES** *privacy_phrase* | **AES** *privacy_phrase* | **None**]
Privacy method and privacy phrase

Defaults

None

Example

```
ruckus(config-sys)#snmpv3-trap test1234 192.168.0.22 MD5 test1234 DES test4321
The command was executed successfully.
```

no snmp-trap-ap

To disable SNMP trap server configuration for AP, use the following command:

no snmp-trap-ap

Example

```
ruckus(config-sys)#no snmp-trap-ap
The SNMP AP trap settings have been updated.
```

Syslog Settings Commands

Use the **syslog** commands to configure the controller's syslog notification settings. To run these commands, you must first enter the **config-sys** context.

syslog

To enable syslog notifications and enter the config-sys-syslog context, use the following command:

syslog

Example

```
ruckus(config-sys)# syslog
ruckus(config-sys-syslog)#
```

no syslog

To disable syslog notification, use the following command:

no syslog

Syntax Description

no syslog
: Disable syslog notification

Defaults

Disabled.

Example

```
ruckus(config-sys)# no syslog
The syslog settings have been updated.
ruckus(config-sys)#
```

server

To set the syslog server address, use the following command:

server *IP-ADDR*

Syntax Description

server
: Set the syslog server IP address.

IPADDR
: Send syslog notifications to this IP address.

Defaults

Disabled.

Example

```
ruckus(config-sys-syslog)# server 172.17.16.2
The syslog settings have been updated.
ruckus(config-sys-syslog)#
```

type

To set the syslog server type, use the following command:

type *<LOG TYPE>*

Syntax Description

all: Sets remote syslog type to all.

client: Sets remote syslog type to client info.

flowlevel: Sets remote syslog type to flowlevel.

Example

```
ruckus(config-sys-syslog)# type all
The syslog settings have been updated.
ruckus(config-sys-syslog)#
```

facility

To set the facility name, use the following command:

facility *FACILITY NAME*

Syntax Description

facility *FACILITY NAME*
Sets the syslog facility name (local0 - local7, or keep)

Defaults

Disabled.

priority

To set the syslog priority level, use the following command:

priority *PRIORITY LEVEL*

Syntax Description

priority *PRIORITY LEVEL*
Sets the syslog priority level (emerg, alert, crit, err, warning, notice, info, debug).

Defaults

Disabled.

ap-facility

To set the AP syslog facility name, use the following command:

ap-facility *FACILITY-NAME*

Syntax Description

ap-facility *FACILITY-NAME*

Sets the AP syslog facility name (local0 - local7, or keep).

Defaults

Disabled.

ap-priority

To set the AP syslog priority level, use the following command:

ap-priority *PRIORITY LEVEL*

Syntax Description

ap-priority *PRIORITY LEVEL*

Sets the AP syslog priority level (emerg, alert, crit, err, warning, notice, info, debug).

IPADDR

Send syslog notifications to this IP address.

Defaults

Disabled.

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# syslog
ruckus(config-sys-syslog)# server 192.168.3.10
The syslog settings have been updated.
ruckus(config-sys-syslog)# facility local0
The syslog settings have been updated.
ruckus(config-sys-syslog)# priority emerg
The syslog settings have been updated.
ruckus(config-sys-syslog)# ap-facility local0
The syslog settings have been updated.
ruckus(config-sys-syslog)# ap-priority emerg
The syslog settings have been updated.
ruckus(config-sys-syslog)# end
The syslog settings have been updated.
Your changes have been saved.
ruckus(config-sys)#
```

no syslog-ap

To disable external syslog server configuration for AP, use the following command:

no syslog-ap

Example

```
ruckus(config-sys)#no syslog-ap
The AP syslog settings have been updated.
```

Management Access Control List Commands

Use the following commands to create or configure management ACLs and enter the **config-sys-mgmt-acl** or **config-sys-mgmt-acl-ipv6** contexts. These commands must be used from the **config-sys** context.

mgmt-acl

To create or configure a management ACL, use the following command:

mgmt-acl *WORD*

Syntax Description

mgmt-acl
Create or configure a management ACL

WORD
Create or configure this management ACL

Defaults

None.

Usage Guidelines

Executing this command enters the **config-mgmt-acl** context.

Example

```
ruckus(config-sys)# mgmt-acl macl1
The management ACL 'macl1' has been created. To save the Management ACL, type 'end' or 'exit'.
ruckus(config-mgmt-acl)#
```

no mgmt-acl

To delete a management ACL for IPv4, use the following command:

no mgmt-acl *WORD*

mgmt-acl-ipv6

To create or configure an IPv6 management ACL, use the following command:

mgmt-acl-ipv6 *WORD*

Executing this command enters the config-mgmt-acl-ipv6 context.

Syntax Description

mgmt-acl-ipv6
Create or configure a management ACL

WORD
Create or configure this management ACL

Defaults

None.

Example

```
ruckus(config-sys)# mgmt-acl-ipv6 macl1
The management ACL 'macl1' has been created. To save the Management ACL, type 'end' or 'exit'.
ruckus(config-mgmt-acl-ipv6)#
```

no mgmt-acl-ipv6

To delete a management ACL for IPv6, use the following command:

no mgmt-acl-ipv6 *WORD*

exit

Saves changes, and then exits the config-mgmt-acl context.

end

Saves changes, and then exits the config-mgmt-acl context.

quit

Exits the config-mgmt-acl context without saving changes.

abort

Exits the config-mgmt-acl context without saving changes.

name

To set the management ACL name, use the following command:

name *WORD*

restrict-type

To set the management ACL restriction type, use the following command:

restrict-type [**single ip-addr** *IP-ADDR* | **range ip-range** *IP-ADDR IP-ADDR* | **subnet ip-subnet** *IP-ADDR IP-SUBNET*]

Syntax Description

restrict-type
: Set the management ACL restriction type (single/range).

single ip-addr
: Set management ACL restriction type to single.

range
Sets the management ACL restriction type to range.

ip-range
Sets the IP address range for management ACL. Use a space ( ) to separate addresses.

subnet ip-subnet
Sets the subnet for management ACL IP address. Use a space ( ) to separate IP address and Netmask (128.0.0.0 to 255.255.255.252).

restrict-type single ip-addr

To set the management ACL restriction type to a single IP address, use the following command:

restrict-type single ip-addr *ip_address*

Syntax Description

restrict-type single ip-addr
Set the management ACL restriction type to a single IP address

ip_address
Set to this IP address only

Example

```
ruckus(config-mgmt-acl)# restrict-type single ip-addr 192.168.110.22
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

restrict-type subnet ip-subnet

To set the management ACL restriction type to certain subnets, use the following command:

restrict-type subnet ip-subnet *IP-SUBNET IP-SUBNET*

Syntax Description

restrict-type subnet ip-subnet
Set the management ACL restriction type to a single IP address

IP-SUBNET
Set to this subnet

Example

```
ruckus(config-mgmt-acl)#restrict-type subnet ip-subnet 172.30.110.26 255.255.254.0
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

restrict-type range ip-range

To set the management ACL restriction type to an IP address range, use the following command:

restrict-type range ip-range *ip_address ip_address*

Syntax Description

restrict-type range ip-range

Set the management ACL restriction type to a single IP address

ip_address ip_address

Set to this IP address range. The first *ip_address* is for the startui

Example

```
ruckus(config-mgmt-acl)#restrict-type range ip-range 172.30.110.28 172.30.110.39
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

show

To display management ACL settings, use the show command.

QoS Commands

Use the following commands to configure QoS settings on the controller. These commands must be executed from the **config-sys** context.

no qos

To disable QoS on the controller, use the following command:

no qos

Syntax Description

no qos

Disable QoS on the controller

Defaults

None.

Example

```
ruckus(config-sys)# no qos
Changes are saved!
System QoS function has been disabled.
```

qos

To enable and configure Quality of Service settings on the controller, use the following command:

qos

Usage Guidelines

Executing this command enters the **config-sys-qos** context. The following commands can be executed from within the qos context.

Example

```
ruckus(config-sys)# qos
ruckus(config-sys-qos)#
```

heuristics video inter-packet-gap

Use the following command to set the QoS heuristics video inter-packet gap minimum/maximum values:

heuristics video inter-packet-gap min *NUMBER* **max** *NUMBER*

heuristics video packet-length

Use the following command to set the heuristics video packet-length values:

heuristics video packet-length min *NUMBER* **max** *NUMBER*

heuristics voice inter-packet-gap

Use the following command to set the heuristics voice inter-packet-gap values:

heuristics voice inter-packet-gap min *NUMBER* **max** *NUMBER*

heuristics voice packet-length

Use the following command to set the heuristics voice packet-length values:

heuristics voice packet-length min *NUMBER* max *NUMBER*

heuristics classification video packet-octet-count

Use the following command to set the heuristics classification video packet-octet-count value:

heuristics classification video packet-octet-count *NUMBER*

heuristics classification voice packet-octet-count

Use the following command to set the heuristics classification voice packet-octect-count value:

heuristics classification voice packet-octet-count *NUMBER*

heuristics no-classification video packet-octet-count

Use the following command to set the heuristics no-classification video packet-octet-count value

heuristics no-classification video packet-octet-count *NUMBER*

heuristics no-classification voice packet-octet-count

Use the following command to set the heuristics no-classification voice packet-octet-count value

heuristics no-classification voice packet-octet-count *NUMBER*

tos classification video

Use the following command to set the TOS classification video value:

tos classification video *WORD*

tos classification voice

Use the following command to set the TOS classification voice value:

tos classification voice *WORD*

tos classification data

Use the following command to set the TOS classification data value:

tos classification data *WORD*

tos classification background

Use the following command to set the TOS classification background value:

tos classification background *WORD*

show

Use the following command to display the system QoS settings:

show

Example

```
ruckus(config-sys)# qos
ruckus(config-sys-qos)# show
System QoS:
ToS DATA TUNNEL = 0xA0
ToS CTRL TUNNEL = 0xA0
ToS Classification-Voice = 0xE0 0xC0 0xB8
ToS Classification-Video = 0xA0 0x80
ToS Classification-Data = 0x0
ToS Classification-Background = 0x0
Tx fail threshold = 50
heuristics inter-packet-gap Video = 0  65
heuristics inter-packet-gap Voice = 15 275
heuristics packet-length Video = 1000  1518
heuristics packet-length Voice = 70 400
heuristics classification Video = 50000
heuristics classification Voice = 600
heuristics no classification Video = 500000
heuristics no classification Voice = 10000

ruckus(config-sys-qos)#
```

tunnel-mtu

To set the tunnel MTU, use the following command:

tunnel-mtu *NUMBER*

Syntax Description

tunnel-mtu

Set the tunnel MTU

Defaults

None.

Example

```
ruckus(config-sys)# tunnel-mtu 1500
The Tunnel MTU settings have been updated.
ruckus(config-sys)#
```

lwapp-mgmt-qlen-threshold

To set the LWAPP MGMT queue length threshold to avoid too many messages delayed in the queue, use the following command:

lwapp-mgmt-qlen-threshold *<NUMBER> <NUMBER>*

Syntax Description

lwapp-mgmt-qlen-threshold

Set the LWAPP management queue threshold

<NUMBER>: Enter the LWAPP MGMT queue length threshold to drop AUTH frames (0~1000, 0 means disabled).

<NUMBER>: Enter the LWAPP MGMT queue length threshold to resume processing AUTH frames (0~1000 and can't bigger than the drop threshold).

Defaults

Drop: 100

Resume: 25

Example

```
ruckus(config-sys)# lwapp-mgmt-qlen-threshold 100 25
The LWAPP MGMT queue length threshold settings have been updated.
ruckus(config-sys)#
```

bonjour

To enable bonjour service, use the following command:

bonjour

Defaults

Disabled.

Example

```
ruckus(config-sys)# bonjour
The bonjour service settings have been updated.
ruckus(config-sys)#
```

no bonjour

To disable bonjour service, use the following command:

no bonjour

telnetd

To enable the telnet server, use the following command:

telnetd

Syntax Description

telnetd

Enable the telnet server

Defaults

None.

Example

```
ruckus(config-sys)# telnetd
The telnet server settings have been updated.
ruckus(config-sys)#
```

no telnetd

To disable the telnet server, use the following command:

telnetd

Syntax Description

no telnetd

Disable the telnet server

Defaults

None.

Example

```
ruckus(config-sys)# no telnetd
The telnet server settings have been updated.
ruckus(config-sys)#
```

static-route

To create and configure static route settings, use the following command:

static-route *WORD*

Syntax Description

static-route

Create and configure a static route

name *WORD*

Set the name of the static route

subnet *IP-SUBNET*

Set the subnet for the destination network. Use a slash (/) to separate IP address and subnet

gateway *GATEWAY-ADDR*

Set the gateway address

show

Show a list of all static routes

Defaults

None.

Example

```
ruckus(config-sys)# static-route route1
The static route 'route1' has been created. To save the static route, type 'end' or 'exit'.
ruckus(config-static-route)# subnet 192.168.11.1/24
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-static-route)# gateway 192.168.11.1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-static-route)# show
Static Route:
ID=
Name= route1
IP subnet= 192.168.11.1/24
IP gateway= 192.168.11.1

ruckus(config-static-route)#
```

no static-route

To delete a static route, use the following command:

no static-route

static-route-ipv6

To create and configure IPv6 static route settings, use the following command:

static-route-ipv6 *WORD*

Syntax Description

static-route-ipv6

Create and configure a static route

name *WORD*

Set the name of the static route

prefix *IPv6-PREFIX*

Set the subnet for the destination network. Use a slash (/) to separate IP address and prefix length

gateway *GATEWAY-ADDR*

Set the gateway address

show

Show a list of all static routes

Defaults

None.

Example

```
ruckus(config-sys)# static-route route1
The static route 'route1' has been created. To save the static route, type 'end' or 'exit'.
ruckus(config-static-route)# subnet 192.168.11.1/24
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-static-route)# gateway 192.168.11.1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-static-route)# show
Static Route:
ID=
Name= route1
IP subnet= 192.168.11.1/24
IP gateway= 192.168.11.1

ruckus(config-static-route)#
```

no static-route-ipv6

To delete an IPv6 static route, use the following command:

no static-route-ipv6 *WORD*

snmp-trap

To set the SNMP trap format, use the following command:

snmp-trap *[SNPv2 | SNMPv3]*

Syntax Description

snmp-trap
Enable SNMP trap notifications

SNMPv2
Set SNMP trap format to SNMPv2

SNMPv3
Set SNMP trap format to SNMPv3

Example

```
ruckus(config-sys)# snmp-trap SNMPv2
The SNMP trap settings have been updated.
ruckus(config-sys)#
```

no snmp-trap

To disable the SNMP trap notifications, use the following command:

no snmp-trap *NUMBER*

Syntax Description

no snmp-trap
Disables SNMP trap notification by index

Example

```
ruckus(config-sys)# no snmp-trap 1
The SNMP trap settings have been updated.
```

no snmpv2-trap

To disable the SNMP trap notifications, use the following command:

no snmp-trap *NUMBER*

Syntax Description

no snmpv2-trap
Disables SNMP trap notification by index

Example

```
ruckus(config-sys)# no snmpv2-trap 1
The SNMP trap settings have been updated.
```

no snmpv3-trap

To disable the SNMPv3 trap notification, use the following command:

no snmpv3-trap *NUMBER*

Syntax Description

no snmpv3-trap

Disables SNMP trap notification by index

Example

```
ruckus(config-sys)# no snmpv3-trap 1
The SNMP trap settings have been updated.
```

no snmpv2

To disable the SNMPv2 agent, use the following command:

no snmpv2

Syntax Description

no snmpv2

Disables the SNMPv2 agent

Example

```
ruckus(config-sys)# no snmpv2
The SNMP v2 agent settings have been updated.
```

no snmpv3

To disable the SNMPv3 agent, use the following command:

no snmpv3

Syntax Description

no snmpv3

Disables the SNMPv3 agent

Example

```
ruckus(config-sys)# no snmpv3
The SNMP v3 agent settings have been updated.
```

login-warning

To configure the login warning message, use the following command:

login-warning

Syntax Description

login-warning

Configure the login warning message.

abort

Exits the login-warning context without saving changes.

end

Saves changes, and then exits the login-warning context.

exit

Saves changes, and then exits the login-warning context.

quit

Exits the login-warning context without saving changes.

content *WORD*

Customize login warning content.

Example

```
ruckus(config-sys)# login-warning
ruckus(config-sys-login-warning)# content "Warning, you are logging into equipment belonging to ruckus,
if you are not an authorized user please logout immediately."
The login warning settings have been updated.
ruckus(config-sys-login-warning)# end
The login warning settings have been updated.
Your changes have been saved.
ruckus(config-sys)#
```

no login-warning

To disable the login warning message, use the following command:

no login-warning

event-log-level

To configure the event log level, use the following command:

event-log-level *EVENT LOG LEVEL*

Syntax Description

event-log-level

Enter the syslog event log level *1-3* (1:Critical Events Only, 2:Warning and Critical Events, 3:Show More).

Defaults

2: Warning and Critical Events

Example

```
ruckus# config
You have all rights in this mode.
```

```
ruckus(config)# sys
ruckus(config-sys)# syslog
ruckus(config-sys-syslog)# event-log-level 1
The syslog settings have been updated.
ruckus(config-sys-syslog)#
```

support-entitle

Use the following command to manually download entitlement file:

support-entitle

Example

```
ruckus(config-sys)# support-entitle
Your Support service has been successfully activated for this ZoneDirector. You may proceed with
firmware upgrade.
ruckus(config-sys)#
```

URL-Filtering-License-Renew

To synchronize the URL Filtering License from the Ruckus server, use the following command:

URL-Filtering-License-Renew

Example

```
ruckus(config-sys)# URL-Filtering-License-Renew
OK
ruckus(config-sys)#
```

session-stats-resv

To enable session statistics recording, use the following command:

session-stats-resv

Defaults

Disabled

Example

```
ruckus(config-sys)# session-stats-resv
The session statistics function has been enabled.
ruckus(config-sys)#
```

no session-stats-resv

Use the following command to disable recording of session statistics:

no session-stats-resv

Example

```
ruckus(config-sys)# no session-stats-resv
The session statistics function has been disabled.
ruckus(config-sys)#
```

arc-data-transmission

To enable ARC data transmission, use the following command:

arc-data-transmission

Example

```
ruckus(config-sys)# arc-data-transmission
The ARC data transmission has been enabled.
ruckus(config-sys)#
```

no arc-data-transmission

To disable ARC (application recognition and control) data transmission, use the following command:

no arc-data-transmission

Example

```
ruckus(config-sys)# no arc-data-transmission
The ARC data transmission has been disabled.
ruckus(config-sys)#
```

session-limit-unauth-stats

To enable recording of Layer 2 unauthorized session statistics, use the following command:

session-limit-unauth-stats

Defaults

Enabled

Example

```
ruckus(config-sys)# session-limit-unauth-stats
The limited unauthorized session statistics function has been enabled.
ruckus(config-sys)#
```

no session-limit-unauth-stats

To disable recording of Layer 2 unauthorized session statistics, use the following command:

no session-limit-unauth-stats

eapol-no-retry

To disable retransmission of EAPOL-key (message 3/4 and group key), use the following command:

eapol-no-retry

Example

```
ruckus(config-sys)# eapol-no-retry
Eapol-key retry has been disabled
ruckus(config-sys)#
```

no eapol-no-retry

To enable retransmission of EAPOL-key, use the following command:

no eapol-no-retry

Example

```
ruckus(config-sys)# no eapol-no-retry
Eapol-key retry has been enabled
ruckus(config-sys)#
```

shared-username-control-enable

To enable the checking function of the number of online stations sharing the same user account, use the following command:

shared-username-control-enable

Example

```
ruckus(config-sys)# shared-username-control-enable
Enable the checking function of the number of online stations shared the same user account.
ruckus(config-sys)#
```

no shared-username-control-enable

To disable the checking function of the number of online stations sharomg the same user account, use the following command:

no shared-username-control-enable

Example

```
ruckus(config-sys)# no shared-username-control
Disable the checking function of the number of online stations shared the same user account.
ruckus(config-sys)#
```

show

Use the following command to display system configuration information:

show

Example

```
ruckus(config-sys)# show
Country Code:
  Code= United States

Identity:
  Name= ZoneDirector

Session Statistics:
  Enable= false
  Limited Unauthorized Session= true

ARC Data Transmission:
  Enable= true
```

```
NTP:
  Status= Enabled
  Address= ntp.ruckuswireless.com
  Timezone= GMT

Log:
  Status= Disabled
  Address=
  Facility=
  Priority=
  AP Facility=
  AP Priority=
  event log level= 1

Tunnel MTU:
  Tunnel MTU= 1500

Bonjour Service:
  Status= Enabled

Telnet Server:
  Status= Disabled

FTP Server:
  Status= Enabled
  Anonynous Status= Disabled

FlexMaster:
  Status= Disabled
  Address=
  Interval= 15

login warning:
  Status= Disabled
  content= "Warning, you are logging into device for authorized user only. If you are not an authorized
user, please click Quit; otherwise click Continue to login."

LWAPP:
  MGMT queue length threshold to drop AUTH frame = 100
  MGMT queue length threshold to resume processing AUTH frame = 25

EAPoL Key no Retry:
  Status= Disabled

ruckus(config-sys)#
```

show support-entitle

To display the content of the entitlement file, use the following command:

show support-entitle

Example

```
ruckus(config-sys)# show support-entitle
Serial Number: SN1150
Services purchased: 904
Date to Start :Thu Oct 16 00:00:00 2014

Date to End: Wed Jan 14 23:59:00 2015

Number of APs: licensed
Status: active
Detailed: Support service activated
ruckus(config-sys)#
```

show URL-Filtering-License

To display th current URL Filtering License information, use the following command:

show URL-Filtering-License

Example

```
ruckus(config-sys)# show url-filtering-license
ID: 1
Name: URL Filtering Temporal License
Number of APs: 128
Generated by: URL Filtering Temporal license by Ruckus
Serial number/Unique ID: un941849001125156924459 3778
Date to Start :Tue Sep 24 16:23:48 2019

Date to End: Mon Dec 23 15:23:48 2019

Status: active
Detailed: This license is available for 54 days.
ruckus(config-sys)#
```

show shared-username-control

To display the web authentication username control setting, use the following command:

show shared-username-control

Example

```
ruckus(config-sys)# show shared-username-control
Disabled the checking function of the number of online stations shared the same user account.
ruckus(config-sys)#
```

Configure UPNP Settings

Use the following commands to enable or disable Universal Plug and Play:

upnp

upnp

Syntax Description

upnp

Enable UPnP

Defaults

Enabled.

Example

```
ruckus(config)# upnp
UPnP Service is enabled
/bin/upnp enable
ruckus(config)#
```

no upnp

no upnp

Syntax Description

no upnp

Enable UPnP

Defaults

Enabled.

Example

```
ruckus(config)# no upnp
UPnP Service is disabled
/bin/upnp disable
ruckus(config)#
```

Configure Zero-IT Settings

To configure Zero-IT settings, use the following commands.

zero-it

To configure Zero-IT settings, use the following command:

zero-it [**local** | **name** *WORD*]

zero-it-auth-server

To configure Zero-IT settings, use the following command:

zero-it-auth-server [**local** | **name** *WORD*]

Syntax Description

zero-it-auth-server
: Set Zero-IT authentication server

local
: Set the Zero-IT authentication server to local database

name
: Set the Zero-IT authentication server to an external AAA server

WORD
: Name of AAA server

Defaults

None.

Example

```
ruckus(config)# zero-it-auth-server name radius
The Authentication Server of Zero IT Activation has been updated.
ruckus(config)#
```

Configure Dynamic PSK Expiration

The following section lists commands for configuring Dynamic Pre-Shared Keys.

dynamic-psk-expiration

To set DPSK expiration, use the following command:

dynamic-psk-expiration *TIME*

Syntax Description

dynamic-psk-expiration

Set DPSK expiration

TIME

Set DPSK expiration to this time limit (one-day, one-week, two-weeks, one-month, two-months, three-months, half-a-year, one-year, two-years)

unlimited

Set DPSKs to never expire

Defaults

None.

Example

```
ruckus(config)# dynamic-psk-expiration unlimited
The Dynamic psk expiration value has been updated.
ruckus(config)#
```

Configure WLAN Settings Commands

Use the **config-wlan** commands to configure the WLAN settings, including the WLAN's description, SSID, and its security settings. To run these commands, you must first enter the **config-wlan** context.

wlan

To create a WLAN or configure an existing WLAN, use the following command:

wlan *<WORD>/<NAME>*

Executing this command enters the config-wlan context.

Syntax Description

wlan

Configure a WLAN

<WORD>/<NAME>

Name of the WLAN service

Defaults

None.

Example

```
ruckus(config)# wlan ruckus2
The WLAN service 'ruckus2' has been created. To save the WLAN service, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no wlan

To delete a WLAN service by name, use the following command:

no wlan*<WORD>*

Example

```
ruckus(config)# no wlan wlantemp
The WLAN service 'wlantemp' has been deleted.
ruckus(config)#
```

abort

Exits the config-wlan context without saving changes.

end

Saves changes, and then exits the config-wlan context.

exit

Saves changes, and then exits the config-wlan context.

quit

Exits the config-wlan context without saving changes.

description

To set the WLAN service description, use the following command:

description *WORD*

Syntax Description

description

Configure the WLAN description

WORD

Set the WLAN description this value

Defaults

None.

Example

```
ruckus(config-wlan)# description ruckustestwlan2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

called-station-id-type

To set the called station ID type to, use the following command:

called-station-id-type [**wlan-bssid** | **ap-mac**]

Syntax Description

wlan-bssid

Set the called station ID type to ‘BSSID:SSID’

ap-mac

Set the called station ID type to ‘APMAC:SSID’

Defaults

wlan-bssid

Example

```
ruckus(config-wlan)# called-station-id-type wlan-bssid
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

ssid

To set the WLAN service's SSID or network name, use the following command:

ssid *SSID*

Syntax Description

ssid

Configure the WLAN service's SSID

SSID

Set the SSID to this value

Defaults

None.

Example

```
ruckus(config-wlan)# ssid ruckus2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

beacon-interval

To set the beacon interval for mesh links, use the following command:

beacon-interval *NUMBER*

Syntax Description

beacon-interval

Set the beacon interval for the WLAN

NUMBER

Enter the beacon interval (100~1000 TUs)

Defaults

100

Example

```
ruckus(config-wlan)# beacon-interval 100
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

wlan-bind

To set the radio for WLAN bind, use the following command:

wlan-bind <RADIO>

Syntax

<RADIO>: [all | 2.g | 5g]

Defaults

all

Example

```
ruckus(config-wlan)# wlan-bind all
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

mgmt-tx-rate

To set the transmit rate for management frames, use the following command:

mgmt-tx-rate *RATE*

Syntax Description

mgmt-tx-rate
: Set the max transmit rate for management frames

RATE
: Set the transmit rate (in Mbps).

Defaults

2

Example

```
ruckus(config-wlan)# mgmt-tx-rate 2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

name

To set the name of the WLAN, use the following command:

name *NAME*

Syntax Description

name

Set the WLAN name

NAME

Set to this name

Defaults

None.

Example

```
ruckus(config-wlan)# name ruckus2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

type

To configure the WLAN type, use the following command:

type [**standard-usage** | **guest-access** | **hotspot** *WORD* | **hs20** *WORD* | **autonomous**]

Syntax Description

type

Set the WLAN type

standard-usage

Set the WLAN type to standard usage

guest-access

Set the WLAN type to guest access

hotspot *WORD*

Set the WLAN type to Hotspot using the hotspot service specified

hs20 *WORD*

Set the WLAN type to Hotspot 2.0 using the HS2.0 operator specified

autonomous

Set the WLAN type to Autonomous.

Defaults

Standard usage

Example

```
ruckus(config-wlan)# type standard-usage
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

type standard-usage

To set the WLAN type to “Standard Usage”, use the following command:

type standard-usage

type standard

type guest-access

To set the WLAN type to “Guest Access”, use the following command:

type guest-access *WORD*

Example

```
ruckus(config-wlan)# type guest-access guestpolicy1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

type hotspot

To set the WLAN type to “Hotspot”, use the following command:

type hotspot

type hs20

To set the WLAN type to “Hotspot 2.0”, use the following command:

type hs20*<WORD>*

Syntax Description

type hs20: set WLAN type to Hotspot 2.0

<WORD>: set Hotspot 2.0 Operator name

Example

```
ruckus(config-wlan)# type hs20 operator1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

type autonomous

To set the WLAN type to “Autonomous”, use the following command:

type autonomous

open

To set the authentication method to 'open', use the following command:

open [none|owe|wpa2|wpa3|wpa23-mixed|wpa-mixed|wep-64|wep-128] passphrase <WORD> algorithm <WORD>]

Syntax Description

- none: Sets the authentication method to 'open' and encryption method to 'none'.
- owe: Sets the authentication method to 'open', encryption method to 'OWE', algorithm to 'AES', and pmf to 'required'.
- wpa2: Sets the authentication method to 'open' and encryption method to 'WPA2'.
- wpa3: Sets the authentication method to 'open' and encryption method to 'WPA3'.
- wpa23-mixed: Sets the encryption method to 'WPA2/WPA3 Mixed'.
- wpa-mixed: Sets the encryption method to 'WPA/WPA2 Mixed'.
- AES: Sets the algorithm to AES.
- auto: Sets the algorithm to auto.
- key: Sets the WEP-64 or WEP-128 key.

Defaults

None.

Example

```
ruckus(config)# wlan wlan2
The WLAN service 'wlan2' has been created. To save the WLAN service, type 'end' or 'exit'.
ruckus(config-wlan)# open none
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)# end
The WLAN service 'wlan2' has been updated and saved.
Your changes have been saved.
ruckus(config)#
```

open owe

To set the authentication method to 'open', encryption method to 'OWE', algorithm to 'AES', and pmf to 'required', use the following command:

open owe

Example

```
ruckus(config-wlan)# open owe
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

open wpa2

To set the authentication method to 'open' and encryption method to 'WPA2', use the following command:

open wpa2 passphrase *WORD* algorithm *[aes|auto]*

Example

```
ruckus(config-wlan)# open wpa2 passphrase pass1234 algorithm aes
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

open wpa3

To set the encryption method to WPA3, use the following command:

open wpa3 passphrase <PASSPHRASE> algorithm *aes*

Example

```
ruckus(config-wlan)# open wpa3 passphrase pass1234 algorithm aes
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

open wpa23-mixed

To set the encryption method to 'WPA2/WPA3 Mixed', use the following command:

open wpa23-mixed psk-passphrase <*PASSPHRASE*> sae-passphrase <*PASSPHRASE*> algorithm *AES*

Example

```
ruckus(config-wlan)# open wpa23-mixed psk-passphrase pass1234 sae pass5678 algorithm aes
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

open wpa-mixed

To set the encryption method to 'WPA/WPA2 Mixed', use the following command:

open wpa-mixed passphrase <*PASSPHRASE*> sae-passphrase <*PASSPHRASE*> algorithm [*AES* | *AUTO*]

Example

```
ruckus(config-wlan)# open wpa-mixed passphrase pass1234 algorithm AES
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

open wep-64

To set the encryption method to 'WEP-64', use the following command:

open wep-64 key <*WEP64-KEY*> key-id <*NUMBER*>

Example

```
ruckus(config-wlan)# open wep-64 key BA3777C135 key-id 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

open wep-128

To set the encryption method to 'WEP-128', use the following command:

open wep-128 key <*WEP128-KEY*> key-id <*NUMBER*>

Example

```
ruckus(config-wlan)# open wep-128 key 252e3634733c22372b41272f34 key-id 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

zero-it-activation

To enable Zero-IT activation, use the following command:

zero-it-activation

zero-it

Syntax Description

zero-it-activation
: Enable Zero-IT activation

zero-it
: Enable Zero-IT activation

Defaults

Disabled.

Example

```
ruckus(config-wlan)# zero-it-activation
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no zero-it-activation

To disable Zero-IT activation, use the following command:

no zero-it-activation

no zero-it

Syntax Description

no zero-it-activation
: Disable Zero-IT activation

no zero-it
: Disable Zero-IT activation

Defaults

Disabled.

Example

```
ruckus(config-wlan)# no zero-it
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

mac none

To set the authentication method to 'MAC Address' and encryption method to 'none', use the following command:

mac none auth-server *WORD*

Syntax Description

mac

Set the authentication method to 'MAC Address'

none

Set the encryption method to 'none'

auth-server *WORD*

Set the authorization server address to *WORD*

Defaults

None.

Example

```
ruckus(config-wlan)# mac none auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

mac owe

To set the authentication to MAC address and encryption method to 'OWE', use the following command:

mac owe auth-server <*WORD*>

Example

```
ruckus(config-wlan)# mac owe auth-server radius1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

mac wpa2

To set the authentication method to 'MAC Address', encryption method to 'WPA2', and algorithm to 'AES', use the following command:

mac wpa2 passphrase*PASSPHRASE* **alogrithm AES auth-server** *WORD*

Syntax Description

mac wpa2

Set the authentication method to 'MAC Address' and encryption method to 'WPA2'

passphrase *PASSPHRASE*

Set the WPA2 passphrase to *PASSPHRASE*

algorithm AES

Set the encryption algorithm to 'AES'

auth-server *WORD*

Set the authorization server address to *WORD*

Defaults

None.

Example

```
ruckus(config-wlan)# mac wpa2 passphrase 12345678 algorithm AES auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

mac wpa3

To set the encryption method to WPA3, use the following command:

mac wpa3 passphrase <*PASSPHRASE*> algorithm AES auth-server <*WORD*>

Defaults

None

Example

```
ruckus(config-wlan)# mac wpa3 passphrase passphrase algorithm AES auth-server 192.168.40.3
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

mac wpa23-mixed

To set the encryption method to 'WPA2/WPA3 Mixed', use the following command:

mac wpa23-mixed psk-passphrase <*PASSPHRASE*> sae-passphrase <*PASSPHRASE*> algorithm AES auth-server <*WORD*>

Defaults

None

Example

```
ruckus(config-wlan)# mac wpa23-mixed psk-passphrase password123 sae-passphrase password123 algorithm AES
auth-server 192.168.40.3
```

```
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

mac wpa-mixed

To set the authentication method to ‘MAC Address’, encryption method to WPA-Mixed, and algorithm to AES, use the following command:

mac wpa-mixed passphrase <*PASSPHRASE*> **algorithm AES auth-server** <*WORD*>

Syntax Description

mac wpa-mixed
Set the authentication method to 'MAC Address' and encryption method to 'WPA-Mixed'

passphrase *PASSPHRASE*
Set the WPA2 passphrase to *PASSPHRASE*

algorithm AES
Set the encryption algorithm to ‘AES’

auth-server *WORD*
Set the authorization server to this auth server

Defaults

None.

Example

```
ruckus(config-wlan)# mac wpa-mixed passphrase pass1234 algorithm AES auth-server radius
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

mac wep-64

To set the authentication method to 'MAC Address', encryption method to 'WEP-64', key index, and WEP key, use the following command:

mac wep-64 key {KEY} key-id {} *KEY* **key-id** *KEY-ID* **auth-server** *WORD*

Syntax Description

mac
Set the authentication method to MAC address

wep-64
Set the encryption method to WEP 64-bit

key *KEY*
Set the WEP key to *KEY*

key-id *KEY-ID*
Set the WEP key ID to *KEY-ID*

auth-server *WORD*
Set the authorization server address to *WORD*

Defaults

None.

Example

```
ruckus(config-wlan)# mac wep-64 key 15791BD8F2 key-id 2 auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

mac wep-128

To set the authentication method to 'MAC Address', encryption method to 'WEP-128', key index, and WEP key, use the following command:

mac wep-128 *KEY* **key-id** *KEY-ID* **auth-server** *WORD*

Syntax Description

mac
: Set the authentication method to MAC address

wep-128
: Set the encryption method to WEP 128-bit

key *KEY*
: Set the WEP key to *KEY*

key-id *KEY-ID*
: Set the WEP key ID to *KEY-ID*

auth-server *WORD*
: Set the authorization server address to *WORD*

Defaults

None.

Example

```
ruckus(config-wlan)# mac wep-128 key 15715791BD8F212345691BD8F2 key-id 2 auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

auth-server

To set the authentication server, use the following command:

auth-server <*WORD*>

Syntax Description

auth-server *WORD*

Set the authorization server address to *WORD*

local

Set the authorization server address to *local database*

Defaults

None.

Example

```
ruckus(config-wlan)# auth-server radius1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

shared wep-64

To set the encryption method to WEP-64, use the following command:

shared wep-64 key <*WEP64-KEY*> key-id <*NUMBER*>

Example

```
ruckus(config-wlan)# shared wep-64 key 0011223344 key-id 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

shared wep-128

To set the encryption method to WEP-128, use the following command:

shared wep-128 key <*WEP128-KEY*> key-id <*NUMBER*>

Example

```
ruckus(config-wlan)# shared wep-128 key 2e6a5f5e7d4b46392174756338 key-id 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

dot1x eap-type EAP-SIM auth-server

To set the authentication method to 'EAP-SIM', use the following command:

dot1x eap-type EAP-SIM auth-server [**local** | **name** *WORD*]

Syntax Description

dot1x
Set the authentication method to ‘802.11x’

eap-type
Set the EAP type

EAP-SIM
Set the authentication method to EAP-SIM

auth-server
Set authentication server

local
Set the authentication server to ‘local database’

name
Set the auth server

WORD
Name of the auth server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x eap-type EAP-SIM auth-server local
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

dot1x eap-type PEAP auth-server

To set the authentication method to 'PEAP', use the following command:

dot1x eap-type PEAP auth-server [**local** | **name** *WORD*]

Syntax Description

dot1x
Set the authentication method to ‘802.11x’

eap-type
Set the EAP type

PEAP
Set the authentication method to PEAP

auth-server
Set authentication server

local
Set the authentication server to ‘local database’

name
Set the auth server

WORD
Name of the auth server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x eap-type PEAP auth-server local
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

dot1x wpa2

To set the authentication method to '802.1x EAP', encryption method to 'WPA2', and algorithm to 'AES', use the following command:

dot1x wpa2algorithm AES auth-server[**local** | **name** <*WORD*>]

Syntax Description

dot1x
Set the authentication method to ‘802.11x’

wpa2
Set the encryption method to WPA2

algorithm AES
Set the algorithm to AES

auth-server
Set authentication server

local
Set the authentication server to ‘local database’

name
Set the auth server

<*WORD*>
Name of the auth server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x wpa2 algorithm AES auth-server Ruckus-RADIUS
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x wpa2 algorithm auto auth-server

To set the authentication method to '802.1x EAP', encryption method to 'WPA2', and algorithm to 'Auto', use the following command:

dot1x wpa2 algorithm auto auth-server [**local** | **name** *WORD*]

Syntax Description

dot1x
Set the authentication method to ‘802.11x’

wpa2
Set the encryption method to WPA2

algorithm auto
Set the algorithm to auto

auth-server
Set authentication server

local
Set the authentication server to ‘local database’

name
Set the auth server

WORD
Name of the auth server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x wpa2 algorithm auto auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x wpa-mixed algorithm AES auth-server

To set the authentication method to 802.1x EAP, encryption method to WPA-Mixed, and encryption method to AES, use the following command:

dot1x wpa-mixed algorithm AES auth-server [**local** | **name** *WORD*]

Syntax Description

dot1x
Set the authentication method to ‘802.11x’

wpa-mixed
Set the encryption method to WPA-Mixed

algorithm AES
Set the algorithm to AES

auth-server
Set authentication server

local
Set the authentication server to ‘local database’

name
Set the auth server

WORD
Name of the auth server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x wpa-mixed algorithm AES auth-server local
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x wpa-mixed algorithm auto auth-server

To set the authentication method to 802.1x EAP, encryption method to WPA-Mixed, and encryption method to Auto, use the following command:

dot1x wpa-mixed algorithm auto auth-server [**local** | **name** *WORD*]

Syntax Description

dot1x
Set the authentication method to ‘802.11x’

wpa-mixed
Set the encryption method to WPA-Mixed

algorithm auto
Set the algorithm to Auto

local
Set the authentication server to ‘local database’

name
Set the auth server

WORD
Name of the auth server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x wpa-mixed algorithm AES auth-server local
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x authentication encryption wep-64 auth-server

To set the authentication method to '802.1x EAP', encryption method to 'WEP-64', key index, and WEP key, use the following command:

dot1x authentication encryption wep-64 auth-server *auth server*

Syntax Description

dot1x authentication
: Set the authentication method to ‘802.11x’

encryption wep-64
: Set the encryption method to WEP 64-bit

auth-server *auth server*
: Set the auth server to *auth server*

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x authentication encryption wep-64 auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x wep-128 auth-server

To set the authentication method to '802.1x EAP', encryption method to 'WEP-128', key index, and WEP key, use the following command:

dot1x wep-128 auth-server [**local** | **name** *WORD*]

Syntax Description

dot1x
: Set the authentication method to ‘802.11x’

wep-128
: Set the encryption method to WEP 128-bit

auth-server[**local** | **name** *WORD*]
: Set the auth server to local or to the named server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x authentication encryption wep-128 auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x none

To set the encryption as none and authentication server to 'Local Database' or the named server, use the following command:

dot1x none auth-server [**local** | **name** <*WORD*>]

Syntax Description

dot1x none

Set the authentication method to ‘802.1x’ and encryption to none.

[**auth-server local** | **name** *WORD*]

Set the auth server to local or to the named server.

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x none auth-server Ruckus-Auth-01
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x-mac

To set the authentication method to '802.1X EAP + MAC Address', use the following command:

dot1x-mac none <*WORD*> [auth-server name <*WORD*>]

Syntax Description

dot1x-mac none

Set the authentication method to ‘802.1X + MAC Address’ and encryption to none

auth-server name *WORD*

Set the auth server to the named server

Defaults

None.

Example

```
ruckus(config-wlan)# dot1x-mac none auth-server name radius1
The command was executed successfully.
ruckus(config-wlan)#
```

dot1x wpa3

To set the authentication method to 802.1X and the encryption method to WPA3, use the following command:

dot1x wpa3 algorithm AES-GCMP-256 auth-server name<*WORD*>

Defaults

None

Example

```
ruckus(config-wlan)# ruckus(config-wlan)# dot1x wpa3 algorithm AES-GCMP-256 auth-server name radius1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

bgscan

To enable background scanning on the WLAN, use the following command:

bgscan

Example

```
ruckus(config-wlan)# bgscan
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no bgscan

To disable background scanning on the WLAN, use the following command:

no bgscan

Example

```
ruckus(config-wlan)# no bgscan
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

ft-roaming

To enable FT Roaming, use the following command:

ft-roaming

Example

```
ruckus(config-wlan)# ft-roaming
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no ft-roaming

To disable FT Roaming, use the following command:

no ft-roaming

rrm-neigh-report

To enable 802.11k Neighbor-list report, use the following command:

rrm-neigh-report

Example

```
ruckus(config-wlan)# rrm-neigh-report
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no rrm-neigh-report

To isable 802.11k Neighbor-list report, use the following command:

no rrm-neigh-report

https-redirection

To enable HTTPS redirection, use the following command:

https-redirection

no https-redirection

To disable HTTPS redirection, use the following command:

no https-redirection

client-flow-log

To enable logging of client flow data to external syslog, use the following command:

client-flow-log

Example

```
ruckus(config-wlan)# client-flow-log
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no client-flow-log

To disable logging of client flow data to external syslog, use the following command:

no client-flow-log

Example

```
ruckus(config-wlan)# no client-flow-log
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

client-connect-log

To enable logging of client connect data, use the following command:

client-connect-log

Defaults

Disabled

Example

```
ruckus(config-wlan)# client-connect-log
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no client-connect-log

To disable logging of client connection data, use the following command:

client-connect-log

Defaults

Disabled

Example

```
ruckus(config-wlan)# no client-connect-log
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

bypasscna

Use the following command to bypass Apple Captive Network Assistance (CNA) on iOS and OS X devices.

bypasscna

Example

```
ruckus(config-wlan)# bypasscna
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no bypasscna

To disable the bypass Apple CNA feature, use the following command:

no bypasscna

Example

```
ruckus(config-wlan)# no bypasscna
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

client-isolation

To enable client isolation (per-AP or across APs), use the following command:

client-isolation [**isolation-on-ap** | **isolation-on-subnet**] [**enable** | **disable**]

Syntax Description

client-isolation
Enable client isolation for this WLAN.

isolation-on-ap
Enable client isolation per AP.

isolation-on-subnet
Enable client isolation across APs.

Example

```
ruckus(config-wlan)# client-isolation isolation-on-ap enable
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

whitelist

To apply a client isolation whitelist to this WLAN, use the following command:

whitelist name *WORD*

no whitelist

To disable the whitelist for this WLAN, use the following command:

no whitelist

load-balancing

To enable load balancing for this WLAN, use the following command:

load-balancing

Defaults

Disabled

Example

```
ruckus(config-wlan)# load-balancing
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no load-balancing

To disable load balancing for this WLAN, use the following command:

no load-balancing

Example

```
ruckus(config-wlan)# no load-balancing
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

band-balancing

To enable band balancing for this WLAN, use the following command:

band-balancing

Defaults

Enabled.

Example

```
ruckus(config-wlan)# band-balancing
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no band-balancing

To disable band balancing for this WLAN, use the following command:

no band-balancing

send-eap-failure

To enable send EAP failure messages, use the following command:

send-eap-failure

Defaults

Disabled

Example

```
ruckus(config-wlan)# send-eap-failure
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no send-eap-failure

To disable send EAP failure messages, use the following command:

no send-eap-failure

Example

```
ruckus(config-wlan)# no send-eap-failure
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

pap-authenticator

To enable RADIUS message authenticator in PAP requests, use the following command:

pap-authenticator

Example

```
ruckus(config-wlan)# pap-authenticator
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no pap-authenticator

To disable RADIUS message authenticator in PAP requests, use the following command:

no pap-authenticator

Example

```
ruckus(config-wlan)# no pap-authenticator
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

nasid-type

To set the NAS ID type, use the following command:

nasid-type [**wlan-bssid** | **mac-addr** | **user-define** *WORD*]

Syntax Description

nasid-type

Set the NAS ID type

wlan-bssid
Set NAS ID type WLAN-BSSID (default)

mac-addr
Set NAS ID type to Controller MAC Address

user-define *WORD*
Set NAD ID type to a user-defined string

Defaults

WLAN-BSSID

Example

```
ruckus(config-wlan)# nasid-type wlan-bssid
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

priority low

To set the WLAN priority to low, use the following command:

priority low

priority high

To set the WLAN priority to high, use the following command:

priority high

web-auth

To enable Web authentication, use the following command:

web-auth [**local** | name *WORD*]

Syntax Description

web-auth
Enable Web authentication

local
Use local database as auth server

name
Specify an external auth server

WORD
The AAA server to use for Web authentication

Defaults

None

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# web-auth Ruckus-RADIUS
The command was executed successfully.
ruckus(config-wlan)#
```

no web-auth

To disable Web authentication, use the following command:

no web-auth

Syntax Description

no web-auth

Disable Web authentication

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# no web-auth
The command was executed successfully.
```

grace-period

To enable and set a maximum time (in minutes) for which users must re-authenticate after disconnecting, use the following command:

grace-period *NUMBER*

Syntax Description

grace-period

Enables and Sets a maximum time (in minutes) for which users must re-authenticate after disconnecting.

Defaults

Disabled.

Example

```
ruckus(config-wlan)# grace-period 20
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no grace-period

To disable the grace period, use the following command:

no grace-period *NUMBER*

Syntax Description

no grace-period

Disables the grace period timeout.

Defaults

Disabled.

Example

```
ruckus(config-wlan)# no grace-period
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

acct-server

To set the accounting server, use the following command:

acct-server *WORD*

Syntax Description

acct-server

Configure the AAA server

WORD

Set the AAA server to this address

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# acct-server Ruckus-Acct-01
The command was executed successfully.
```

acct-server interim-update

To configure the interim update frequency (in minutes) of the AAA server, use the following command:

acct-server *WORD* **interim-update** *NUMBER*

Syntax Description

acct-server

Confgure the interim update frequency of the AAA server

interim-update{minutes}

Set the update frequency to this value (in minutes)

Defaults

5 (minutes)

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# acct-server Ruckus-Acct-01 interim-update 5
The command was executed successfully.
```

no acct-server

To disable the AAA server, use the following command:

no acct-server

Syntax Description

no acct-server

Disable AAA server authentication

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# no acct-server
The command was executed successfully.
```

inactivity-timeout

To set the inactivity timeout to the specified number in minutes, use the following command:

inactivity-timeout *NUMBER*

Syntax Description

inactivity-timeout

Enable and set the inactivity timeout

NUMBER

Set the inactivity timeout in minutes (1-500 min.)

Defaults

5

Example

```
ruckus(config-wlan)# inactivity-timeout 15
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

web-auth-timeout

To enable and set the web authentication timeout time to the specified number in minutes, use the following command:

web-auth-timeout *NUMBER*

Syntax Description

web-auth-timeout

Enable and set the web authentication timeout

NUMBER

Set the inactivity timeout in minutes

Defaults

5

Example

```
ruckus(config-wlan)# web-auth-timeout 15
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

vlan

To set the VLAN ID for the WLAN, use the following command:

vlan *NUMBER*

Syntax Description

vlan

Enable VLAN

NUMBER

Set the VLAN ID to this value

Defaults

1

Example

```
ruckus(config-wlan)# vlan 123
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

dynamic-vlan

To enable dynamic VLAN, use the following command:

dynamic-vlan

Syntax Description

dynamic-vlan

Enable dynamic VLAN

Usage Guidelines

Dynamic VLAN can be enabled or disabled in the following two conditions: 1) The authentication method is '802.1X/EAP' or 'MAC Address', Encryption method is WPA, WPA2, WPA mixed, or none. 2) Authentication method is 'Open', Encryption method is WPA, WPA2 (Algorithm may not be Auto), enable Zero-IT Activation, enable Dynamic PSK.

Example

```
ruckus(config-wlan)# dynamic-vlan
The command was executed successfully. To save the changes, type 'end' or 'exit'
```

no dynamic-vlan

To disable dynamic VLAN, use the following command:

no dynamic-vlan

Syntax Description

no dynamic-vlan

Disable dynamic VLAN

Defaults

Disabled.

Example

```
ruckus(config-wlan)# no dynamic-vlan
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

mcast-filter

To enable multicast filter for the WLAN, use the following command:

mcast-filter

no mcast-filter

To disable multicast filter for the WLAN, use the following command:

no mcast-filter

hide-ssid

To hide an SSID from wireless users, use the following command.Wireless users who know the SSID will still be able to connect to the WLAN service.

hide-ssid

Syntax Description

hide-ssid

Hide SSID from wireless users

Defaults

Disabled

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# hide-ssid
The command was executed successfully.
```

no hide-ssid

To unhide or broadcast an SSID to wireless users, use the following command:

no hide-ssid

Syntax Description

no hide-ssid

Broadcast SSID to wireless users

Defaults

Disabled

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# no hide-ssid
The command was executed successfully
```

ofdm-only

To enable support of OFDM rates only, use the following command:

ofdm-only

no ofdm-only

To disable OFDM only rates, use the following command:

no ofdm-only

admission-control

To enable Call Admission Control, use the following command:

admission-control

no admission-control

To disable Call Admissino Control, use the following command:

no admission-control

transient-client-management

To enable transient client management, use the following command:

transient-client-management

Defaults

Disabled.

Example

```
ruckus(config-wlan)# transient-client-management
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no transient-client-management

To disable transient client management, use the following command:

no transient-client-management

Defaults

Disabled.

Example

```
ruckus(config-wlan)# no transient-client-management
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

join-wait-time

To set the time to wait on join requests (1-60 seconds, 5 by default), use the following command:

join-wait-time *<NUMBER>*

Defaults

5

Example

```
ruckus(config-wlan)# transient-client-management
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#   join-wait-time 5
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

join-wait-threshold

To set the number of join requests to wait (1-50 seconds, 5 by default), use the following command:

join-wait-threshold *<NUMBER>*

Defaults

5

Example

```
ruckus(config-wlan)# join-wait-threshold 5
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

join-expire-time

To set the join expire time (1-300 seconds, 300 by default), use the following command:

join-expire-time *<NUMBER>*

Defaults

300

Example

```
ruckus(config-wlan)# join-expire-time 300
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

min-client-rssi

To set the minimum client RSSI threshold (-90 to -60 dBm, -85 by default), use the following command:

min-client-rssi <*NUMBER*>

Defaults

-85

Example

```
ruckus(config-wlan)# min-client-rssi -85
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

bss-minrate

To set the minimum BSS transmission rate of the WLAN (in Mbps), use the following command:

bss-minrate *NUMBER*

Syntax Description

bss-minrate

Set the minimum BSS transmission rate in Mbps.

NUMBER

Minimum BSS transmission rate

Defaults

None.

Example

```
ruckus(config-wlan)# bss-minrate 2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no bss-minrate

To disable the minimum BSS transmission rate for the WLAN, use the following command:

no bss-minrate

dtim-period

To set the DTIM period of the WLAN, use the following command:

dtim-period *NUMBER*

Syntax Description

dtim-period

Sets the DTIM period of the WLAN (1-255).

NUMBER

DTIM period.

Defaults

1

Example

```
ruckus(config-wlan)# dtim-period 5
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no dtim-period

To set the DTIM period of the WLAN to 1 (default), use the following command:

no dtim-period

Syntax Description

no dtim-period

Set the DTIM period to 1.

Defaults

1

Example

```
ruckus(config-wlan)# no dtim-period
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

directed-threshold

To set the Directed MC/BC threshold of the WLAN (0-128), use the following command:

directed-threshold *NUMBER*

Syntax Description

directed-threshold

Set the Directed MC/BC threshold of the WLAN.

NUMBER

Directed threshold (0-128)

Defaults

5

Example

```
ruckus(config-wlan)# directed-threshold 5
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no directed-threshold

To set the Directed MC/BC threshold of the WLAN to 5 (default), use the following command:

no directed-threshold

Syntax Description

no directed-threshold

Sets the Directed Multicast/Broadcast threshold to 5.

Defaults

5

Example

```
ruckus(config-wlan)# no directed-threshold
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

tunnel-mode

To enable tunnel mode, use the following command:

tunnel-mode

Syntax Description

tunnel-mode

Enable tunnel mode

Defaults

Disabled.

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan)# tunnel-mode
The command was executed successfully.
```

no tunnel-mode

To disable the tunnel mode, use the following command:

no tunnel-mode

Syntax Description

no tunnel-mode

Disable the tunnel mode

Defaults

Disabled.

Example

```
ruckus# config
ruckus(config)# wlan wlan-123
ruckus(config-wlan-wlan-123)# no tunnel-mode
The command was executed successfully.
```

dhcp-relay

To set the DHCP relay server to the specified address (tunneled WLANs only), use the following command:

dhcp-relay *WORD*

no dhcp-relay

To disable DHCP relay, use the following command:

no dhcp-relay

smart-roam

To enable and set SmartRoam with the specified roam factor (1-10), use the following command:

smart-roam *NUMBER/EMPTY*

no smart-roam

To disable the SmartRoam feature, use the following command:

no smart-roam

force-dhcp

To enable the Force DHCP option, use the following command:

force-dhcp

Defaults

Disabled

Example

```
ruckus(config-wlan)# force-dhcp
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

force-dhcp-timeout

To disconnect the client if it does not obtain valid IP address within the specified timeout period (in seconds), use the following command:

force-dhcp-timeout *NUMBER*

Defaults

10 seconds

Example

```
ruckus(config-wlan)# force-dhcp-timeout 10
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no force-dhcp

To disable the Force DHCP option, use the following command:

no force-dhcp

Configuring DHCP Option 82 Sub-Option Settings

Use the following commands to enable DHCP Option 82 and configure sub-option settings for a WLAN.

Execute this command from within the *config-wlan* context to enter the *config-wlan-option82* context and configure option 82 sub-option settings.

Example

```
ruckus(config-wlan)# option82
Sets the DHCP option82 with default value.
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan-option82)#
```

option82

To enable DHCP option 82 and enter the config-wlan-option82 context, use the following command:

option82

Defaults

Disabled

Syntax Description

subopt1
Enables and sets the DHCP option 82 sub-option1.

subopt1 disable
Disables the DHCP option 82 sub-option1.

subopt1 rks-circuitid
sets the DHCP option 82 sub-option1 is RKS_CircuitID.

subopt1 ap-mac-hex
sets the DHCP option 82 sub-option1 is AP-MAC.

subopt1 ap-mac-hex-essid
sets the DHCP option 82 sub-option1 is AP-MAC and ESSID.

subopt2
Enables and sets the DHCP option 82 sub-option2.

subopt2 disable
Disables the DHCP option 82 sub-option2.

subopt2 client-mac-hex
sets the DHCP option 82 sub-option2 is Client-Mac.

subopt2 client-mac-hex-essid
sets the DHCP option 82 sub-option2 is Client-Mac and Essid.

subopt2 ap-mac-hex
sets the DHCP option 82 sub-option2 is AP-MAC.

subopt2 ap-mac-hex-essid
sets the DHCP option 82 sub-option2 is AP-MAC and ESSID.

subopt2 cuid
Sets the DHCP option 82 sub-option2 is CUID.

subopt150
Enables and sets the DHCP option 82 sub-option150.

subopt150 disable
Disables the DHCP option 82 sub-option150.

subopt150 vlan-id
sets the DHCP option 82 sub-option150 is Vlan ID.

subopt151
Enables and sets the DHCP option 82 sub-option151.

subopt151 disable
Disables the DHCP option 82 sub-option151.

subopt151 area-name *WORD/NAME*
Sets the DHCP option 82 sub-option151's Area Name.

subopt151 essid
Sets the DHCP option 82 sub-option151 is Essid.

no option82

To disable DHCP option 82, use the following command:

no option82

sta-info-extraction

To enable station information extraction (client fingerprinting), use the following command:

sta-info-extraction

Defaults

Enabled

no sta-info-extraction

To disable station information extraction (client fingerprinting), use the following command:

no sta-info-extraction

max-clients

To set the maximum number of clients for a specific WLAN, use the following command:

max-clients *NUMBER*

Syntax Description

max-clients

Configure the maximum number of clients that the WLAN can support

NUMBER

Set the maximum clients to this value

Defaults

100

Example

```
ruckus(config-wlan)# max-clients 100
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

802dot11d

To enable 802.11d for the WLAN, use the following command:

802dot11d

Defaults

Enabled

no 802dot11d

To disable 802.11d for the WLAN, use the following command:

no 802dot11d

arc

Use the following command to enable Application Recognition & Control:

arc

Defaults

Disabled

Example

```
ruckus(config-wlan)# arc
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no arc

Use the following command to disable Application Recognition and Control:

no arc

apply-arc-policy

Use the following command to apply an application policy to the WLAN:

apply-arc-policy *WORD*

Defaults

None

Example

```
ruckus(config-wlan)# apply-arc-policy facebook
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no apply-arc-policy

Use the following command to disable an application policy for the WLAN:

no apply-arc-policy

Defaults

None

Example

```
ruckus(config-wlan)# no apply-arc-policy
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

url-filtering

To enable URL Filtering for the WLAN, use the following command:

url-filtering

Defaults

Disabled

Example

```
ruckus(config-wlan)# url-filtering
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no url-filtering

To disable URL Filtering for the WLAN, use the following command:

no url-filtering

Defaults

Disabled

Example

```
ruckus(config-wlan)# no url-filtering
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

url-filtering-profile

Use the following command to apply a URL filtering profile to the WLAN:

url-filtering-profile *WORD*

Defaults

None

Example

```
ruckus(config-wlan)# url-filtering-profile filter1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

auto-proxy

To enable auto-proxy and set the location of the wpad.dat file, use the following command:

auto-proxy [**wpad-saved-on-zd** | **wpad-saved-on-external-server**] **url** *WORD*

Syntax Description

auto-proxy
: Enable auto-proxy and specify the location of the wpad.dat file

wpad-saved-on-ZD
: WPAD.DAT file is saved on ZoneDirector

wpad-saved-on-external-server
: WPAD.DAT file is saved on an external server

url
: Specify the WPAD URL configured on DHCP/DNS server

WORD
: Auto-proxy path and file name

Defaults

None.

Example

```
ruckus(config-wlan)# auto-proxy wpad-saved-on-zd url 192.168.0.2/wpad.dat
The file has been loaded into ZoneDirector successfully,Please use 'import' to apply it
ruckus(config-wlan)#
```

no auto-proxy

To disable auto-proxy, use the following command:

no auto-proxy

pmk-cache

To set the PMK cache time to the specified number in minutes (1~720 minutes), use the following command:

pmk-cache timeout *NUMBER*

Defaults

720 minutes

no pmk-cache

To disable PMK cache, use the following command:

no pmk-cache

pmk-cache-for-reconnect

To apply PMK cache when client reconnects (default), use the following command:

pmk-cache-for-reconnect

no pmk-cache-for-reconnect

To disable application of PMK caching when client reconnects, use the following command:

no pmk-cache-for-reconnect

Defaults

Enabled

Usage Guidelines

When “no pmk-cache-for-reconnect” is set, the controller attempts to look up PMK cache for roaming clients only, so every client reconnection requires a full reauthentication. A graceful roaming (disconnect before connecting to the roam-to AP) is not regarded as roaming from the controller’s perspective.

sae-anti-clogging-threshold

To set the SAE anti_clogging_threshold to the specified number, use the following command:

sae-anti-clogging-threshold*<NUMBER>*

Defaults

None

Example

```
ruckus(config-wlan)# sae-anti-clogging-threshold 10
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

roaming-acct-interim-update

To enable accounting interim-updates when a client roams, use the following command:

roaming-acct-interim-update

Defaults

Disabled.

Usage Guidelines

When “roaming-acct-interim-update” is set, all traffic and session-id data from the original session is carried over to the new session.

no roaming-acct-interim-update

To disable accounting interim updates when a client roams (default: disabled), use the following command:

no roaming-acct-interim-update

wifi6

To enable wifi6 in WLAN for 11ax APs, use the following command:

wifi6

Syntax Description

wifi6

Enable wifi6 for this WLAN.

Example

```
ruckus(config-wlan)# wifi6
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)# show
WLAN Service:
  ID:
……
Wifi6 = Enabled
```

no wifi6

To disable wifi6 on the WLAN, use the following command:

no wifi6

Example

```
ruckus(config-wlan)# no wifi6
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

show

To display WLAN settings, use the following command:

show

Defaults

None

Example

```
ruckus(config-wlan)# show
WLAN Service:
  ID:
    :
      NAME = wlantest
      Tx. Rate of Management Frame(2.4GHz) = 2.0Mbps
      Tx. Rate of Management Frame(5GHz)   = 6.0Mbps
      Beacon Interval = 100ms
      SSID = wlantest
      Description =
      Type = Standard Usage
      Authentication = open
      Encryption = wpa3
      Algorithm = aes
      Passphrase = password123
      SAE anti-clogging-threshold = 10
      FT Roaming = Disabled
      802.11k Neighbor report = Disabled
      Web Authentication = Disabled
      Authentication Server = Disabled
```

```
        Accounting Server = Disabled
        Called-Station-Id type = wlan-bssid
        Tunnel Mode = Disabled
        DHCP relay = Disabled
        Background Scanning = Enabled
        Max. Clients = 100
        Isolation per AP = Disabled
        Isolation across AP = Disabled
        Zero-IT Activation = Disabled
        Priority = High
        Load Balancing = Disabled
        Band Balancing = Disabled
        Dynamic PSK = Disabled
        Rate Limiting Uplink = Disabled
        PerSSID Rate Limiting Uplink = 0
        Rate Limiting Downlink = Disabled
        PerSSID Rate Limiting Downlink = 0
        Auto-Proxy configuration:
          Status = Disabled
        Inactivity Timeout:
            Status = Enabled
            Timeout = 5 Minutes
        VLAN-ID = 1
        Dynamic VLAN = Disabled
        Closed System = Disabled
        Https Redirection = Disabled
        OFDM-Only State = Disabled
        Multicast Filter State = Disabled
        802.11d State = Disabled
        Force DHCP State = Disabled
        Force DHCP Timeout = 10
        DHCP Option82:
            Status = Disabled
            Option82 sub-Option1 = Disabled
            Option82 sub-Option2 = Disabled
            Option82 sub-Option150 = Disabled
            Option82 sub-Option151 = Disabled
        Ignore unauthorized client statistic = Disabled
        STA Info Extraction State = Enabled
        BSS Minrate = Disabled
        DTIM period = 1
        Directed MC/BC Threshold = 5
        Call Admission Control State = Disabled
        PMK Cache Timeout= 720 minutes
        PMK Cache for Reconnect= Enabled
        NAS-ID Type= wlan-bssid
        Roaming Acct-Interim-Update= Disabled
        PAP Message Authenticator = Enabled
        Send EAP-Failure = Disabled
        L2/MAC = No ACLS
        L3/L4/IP Address = No ACLS
        L3/L4/IPv6 Address = No ACLS
        Precedence = Default
        Proxy ARP = Disabled
        Device Policy = No ACLS
        Vlan Pool = No Pools
        Role based Access Control Policy = Disabled
        SmartRoam = Disabled  Roam-factor = 1
        White List = No ACLS
        URL Filtering = Enabled
        Application Recognition & Control = Disabled
        Client Flow Data Logging = Disabled
        Wlan Bind = all
        Client Connection Data = Disabled
        Transient Client Management = Disabled
        80211w-pmf = Required

    ruckus(config-wlan)#
```

Configure Dynamic PSK Commands

Use the following commands to enable and configure Ruckus Dynamic Pre-Shared Key functionality for the WLAN.

dynamic-psk enable

To enable internal Dynamic Pre-Shared Keys, use the following command:

dynamic-psk enable

Syntax Description

dynamic-psk enable

Enable internal Dynamic PSK

Defaults

Disabled

Example

```
ruckus(config-wlan)# dynamic-psk enable
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

dynamic-psk external

To enable external Dynamic Pre-Shared Keys, use the following command:

dynamic-psk externalauth-server <WORD>

Syntax Description

dynamic-psk external

Enable external Dynamic PSK

auth-server <WORD>

Specify authentication server

Defaults

Disabled

Example

```
ruckus(config-wlan)# dynamic-psk external auth-server RADIUS
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

dynamic-psk passphrase-len

To set the Dynamic Pre-Shared Key passphrase length, use the following command:

dynamic-psk passphrase-len *NUMBER*

dynamic-psk type

To sets the type of dynamic PSK (secure or mobile-friendly), use the following command:

dynamic-psk type [mobile-friendly|secure]

Syntax Description

dynamic-psk type
Set the DPSK type

mobile-friendly
Set the DPSK type to mobile-friendly

secure
Set the DPSK type to secure

Defaults

Secure

Example

```
ruckus(config-wlan)# dynamic-psk type mobile-friendly
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no dynamic-psk

To disable Dynamic Pre-Shared Keys on the WLAN, use the following command:

no dynamic-psk

limit-dpsk

To enable Dynamic PSK limits and set the max number of devices per user, use the following command:

limit-dpsk *NUMBER*

no limit-dpsk

To disable Dynamic PSK limits, use the following command:

no limit-dpsk

shared-dpsk

To enable Shared Dynamic PSK and set the number of devices that can share one unbound DPSK (2-4000), use the following command:

shared-dpsk *<NUMBER>*

no shared-dpsk

To disable Shared Dynamic PSK, use the following command:

no shared-dpsk

dynamic-psk-expiration

To set the WLAN Dynamic PSK expiration, use the following command:

dynamic-psk-expiration [**length** | **start-point**] *WORD*

Syntax Description

dynamic-psk-expiration
Sets the DPSK expiration.

length
Sets the DPSK expiration length.

unlimited
Sets wlan dynamic psk expiration to unlimited.

one-day
Sets wlan dynamic psk expiration to one day.

one-week
Sets wlan dynamic psk expiration to one week.

two-weeks
Sets wlan dynamic psk expiration to two weeks.

one-month
Sets wlan dynamic psk expiration to one month.

two-months
Sets wlan dynamic psk expiration to two months.

three-months
Sets wlan dynamic psk expiration to three months.

half-a-year
Sets wlan dynamic psk expiration to half a year.

one-year
Sets wlan dynamic psk expiration to one year.

two-years
Sets wlan dynamic psk expiration to two years.

start-point

Sets the DPSK validity start-point.

first-use

The D-PSK expiration will be calculated from when it is first used.

creation-time

The D-PSK expiration will be calculated from when it is created.

Example

```
ruckus(config-wlan)# dynamic-psk-expiration start-point first-use
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)# dynamic-psk-expiration length one-week
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no l2acl

To disable Layer 2 Access Control Lists, use the following command:

no l2acl

no role-based-access-ctrl

To disable role based access control policy service, use the following command:

no role-based-access-ctrl

no l3acl

To disable Layer 3/4 ACLs, use the following command:

no l3acl

no l3acl-ipv6

To disable Layer 3/4 IPv6 ACLs, use the following command:

no l3acl-ipv6

no vlanpool

To disable the VLAN pool for this WLAN, use the following command:

no vlanpool

no dvcpcy

To disable device policy for this WLAN, use the following command:

no dvcpcy

rate-limit

To set the rate limiting for the WLAN, use the following command:

rate-limit uplink *NUMBER* **downlink** *NUMBER*

Syntax Description

rate-limit
Set the rate limit

uplink
Set the uplink rate limit

downlink
Set the downlink rate limit

NUMBER
Set the rate limiting to the value specified.

Defaults

None.

Example

```
ruckus(config-wlan)# rate-limit uplink 20 downlink 20
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

no rate-limit

To disable the rate limit, use the following command:

no rate-limit

Syntax Description

no rate-limit
Disable rate limiting for the WLAN

Defaults

Disabled.

Example

```
ruckus(config-wlan)# no rate-limit
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

vlanpool

To configure a VLAN pool with the specified name, use the following command:

vlanpool *WORD*

no mac-addr-format

Sets MAC auth username and password to format aabbccddeeff.

mac-addr-format

Sets MAC auth username and password to one of the following formats:

mac-addr-format aa-bb-cc-dd-ee-ff
Sets MAC auth username and password to format aa-bb-cc-dd-ee-ff.

mac-addr-format aa:bb:cc:dd:ee:ff
Sets MAC auth username and password to format aa:bb:cc:dd:ee:ff.

mac-addr-format AABBCCDDEEFF
Sets MAC auth username and password to format AABBCCDDEEFF.

mac-addr-format AA-BB-CC-DD-EE-FF
Sets MAC auth username and password to format AA-BB-CC-DD-EE-FF.

mac-addr-format AA:BB:CC:DD:EE:FF
Sets MAC auth username and password to format AA:BB:CC:DD:EE:FF.

acl dvcpcy

To apply a Device Policy to the WLAN, use the following command:

acl dvcpcy *WORD*

acl prece

To apply a Precedence Policy to the WLAN, use the following command:

acl prece *WORD*

acl role-based-access-ctrl

To enable Role based Access Control Policy on the WLAN, use the following command:

acl role-based-access-ctrl

Defaults

Disabled

Example

```
ruckus(config-wlan)# acl role-based-access-ctrl
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)#
```

qos classification

To enable Quality of Service classification, use the following command:

qos classification

no qos classification

To disable Quality of Service classification, use the following command:

no qos classification

qos heuristics-udp

To enable QoS heuristics for UDP traffic, use the following command:

qos heuristics-udp

no qos heuristics-udp

To disable QoS heuristics for UDP traffic, use the following command:

no qos heuristics-udp

qos directed-multicast

To enable QoS directed multicast, use the following command:

qos directed-multicast

no qos directed-multicast

To disable QoS directed multicast, use the following command:

no qos directed-multicast

qos igmp-snooping

To disable QoS directed multicast, use the following command:

qos igmp-snooping

no qos igmp-snooping

To disable QoS IGMP snooping, use the following command:

no qos igmp-snooping

qos mld-snooping

To enable QoS MLD snooping, use the following command:

no qos mld-snooping

no qos mld-snooping

To disable QoS MLD snooping, use the following command:

no qos mld-snooping

qos tos-classification

To enable QoS TOS classification, use the following command:

qos tos-classification

no qos tos-classification

To disable QoS TOS classification, use the following command:

no qos tos-classification

qos priority high

To set QoS priority to 'high', use the following command:

qos priority high

qos priority low

To set QoS priority to 'low', use the following command:

qos priority low

qos directed-threshold

To set the QoS directed threshold, use the following command:

qos directed-threshold *NUMBER*

disable-dgaf

To disable Downstream Group-Address Frame Forwarding, use the following command (Hotspot 2.0 WLAN only):

disable-dgaf

no disable-dgaf

To enable Downstream Group-Address Frame Forwarding, use the following command (Hotspot 2.0 WLAN only):

no disable-dgaf

proxy-arp

To enable Proxy ARP service for the WLAN, use the following command:

proxy-arp

no proxy-arp

To disable Proxy ARP service for the WLAN, use the following command:

no proxy-arp

80211w-pmf

To enable 802.11w PM, use the following command:

80211w-pmf

no 80211w-pmf

To disable 802.11w PMF, use the following command:

no 80211w-pmf

ignor-unauth-stats

To enable ignoring unauthorized client statistics, use the following command:

ignor-unauth-stats

no ignor-unauth-stats

To disable ignoring unauthorized client statistics, use the following command:

no ignor-unauth-stats

show

To display the WLAN settings, use the following command:

show

Syntax Description

show

Display WLAN settings

Defaults

None.

Example

```
ruckus(config)# wlan ruckus1
The WLAN service 'ruckus1' has been loaded. To save the WLAN service, type 'end' or 'exit'.
ruckus(config-wlan)# show
WLAN Service:
  ID:
    1:
      NAME = Ruckus-Wireless-1
      Tx. Rate of Management Frame(2.4GHz) = 2.0Mbps
      Tx. Rate of Management Frame(5GHz)   = 6.0Mbps
      Beacon Interval = 100ms
      SSID = Ruckus-Wireless-1
      Description = Ruckus-Wireless-1
      Type = Standard Usage
      Authentication = open
      Encryption = wpa
      Algorithm = aes
      Passphrase = password
      FT Roaming = Disabled
      802.11k Neighbor report = Disabled
      Web Authentication = Disabled
      Authentication Server = Disabled
      Accounting Server = Disabled
      Called-Station-Id type = wlan-bssid
      Tunnel Mode = Disabled
      DHCP relay = Disabled
      Max. Clients = 100
      Isolation per AP = Disabled
      Isolation across AP = Disabled
      Zero-IT Activation = Enabled
      Load Balancing = Disabled
      Band Balancing = Disabled
      Dynamic PSK = Enabled
      Dynamic PSK Passphrase Length =
      Limit Dynamic PSK = Disabled
      Auto-Proxy configuration:
        Status = Disabled
      Inactivity Timeout:
          Status = Disabled
      VLAN-ID = 1
      Dynamic VLAN = Disabled
      Closed System = Disabled
      OFDM-Only State = Disabled
      Multicast Filter State = Disabled
      802.11d State = Disabled
      Force DHCP State = Disabled
      Force DHCP Timeout = 0
      DHCP Option82:
          Status = Disabled
          Option82 sub-Option1 = Disabled
          Option82 sub-Option2 = Disabled
          Option82 sub-Option150 = Disabled
          Option82 sub-Option151 = Disabled
      Ignore unauthorized client statistic = Disabled
      STA Info Extraction State = Enabled
      BSS Minrate = Disabled
      Call Admission Control State = Disabled
      PMK Cache Timeout= 720 minutes
      PMK Cache for Reconnect= Enabled
      NAS-ID Type= wlan-bssid
      Roaming Acct-Interim-Update= Disabled
      PAP Message Authenticator = Enabled
      Send EAP-Failure = Disabled
      L2/MAC = No ACLS
      L3/L4/IP Address = No ACLS
      L3/L4/IPv6 Address = No ACLS
      Precedence = No ACLS
      Proxy ARP = Disabled
      Device Policy = No ACLS
      Role based Access Control Policy = Disabled
```

```
      SmartRoam = Disabled  Roam-factor = 1
      White List = No ACLS
      Application Visibility = disabled
      Apply Policy Group = No_Denys


ruckus(config)#
```

Configure WLAN Group Commands

Use the wlan-group commands to configure the settings of a particular WLAN group.

wlan-group

To create a new WLAN group or update an existing WLAN group, use the following command:

wlan-group *WORD*

Syntax Description

wlan-group

Configure the WLAN group

WORD

Name of the WLAN group

Defaults

Default.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
The WLAN group 'wlangroup2' has been created. To save the WLAN group, type 'end' or 'exit'.
ruckus(config-wlangrp)#
```

no wlan-group

To delete a WLAN group from the list, use the following command:

no wlan-group *WORD*

Syntax Description

no wlan-group

Delete the WLAN group

WORD

Name of the WLAN group

Defaults

None.

Example

```
ruckus(config)# no wlan-group wlan-grp-01
The WLAN group 'wlan-grp-01' has been removed.
ruckus(config)#
```

abort

To exit the wlan-group context without saving changes, use the abort command. Enter this command from within the context of the WLAN group that you are configuring.

abort

Syntax Description

abort

Exit the WLAN group without saving changes

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
The WLAN group 'wlangroup2' has been created. To save the WLAN group, type 'end'  or 'exit'.
ruckus(config-wlangrp)# abort
No changes have been saved.
ruckus(config)#
```

end

To save changes to the WLAN group settings and exit the wlan-group context, use the following command. Enter this command from within the context of the WLAN group that you are configuring.

end

Syntax Description

end

Save changes, and then exit the WLAN group

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
The WLAN group 'wlangroup2' has been created. To save the WLAN group, type 'end' or 'exit'.
ruckus(config-wlangrp)# end
The WLAN group 'wlangroup2' has been updated.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes to the WLAN group settings and exit the wlan-group context, use the exit command. Enter this command from within the context of the WLAN group that you are configuring.

exit

Syntax Description

exit

Save changes, and then exit the WLAN group

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
The WLAN group entry 'wlangroup2' has been loaded. To save the WLAN group, type 'end' or 'exit'.
ruckus(config-wlangrp)# exit
The WLAN group 'wlangroup2' has been updated.
Your changes have been saved.
ruckus(config)#
```

quit

To exit the wlan-group context without saving changes, use the following command. Enter this command from within the context of the WLAN group that you are configuring.

quit

Syntax Description

quit

Exit the WLAN group without saving changes

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
The WLAN group entry 'wlangroup2' has been loaded. To save the WLAN group, type 'end' or 'exit'.
ruckus(config-wlangrp)# quit
No changes have been saved.
ruckus(config)#
```

name

To set the WLAN group name, use the following command. Enter this command from within the context of the WLAN group that you are configuring.

name *WORD*

Syntax Description

name

Configure the WLAN group name

WORD

Set the WLAN group name to this value

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
The WLAN group entry 'wlangroup2' has been loaded. To save the WLAN group, type 'end' or 'exit'.
ruckus(config-wlangrp)# name wlangroup2
ruckus(config-wlangrp)# show
WLAN Group:
  ID:
    2:
      Name= wlangroup2
      Description=
      WLAN Service:

ruckus(config-wlangrp)#
```

description

To set the WLAN group description, use the following command. Enter this command from within the context of the WLAN group that you are configuring. Multiple word text must be enclosed in quotes.

description *WORD*

Syntax Description

description

Configure the WLAN group description

WORD

Set the WLAN group description to this value

Defaults

None.

Example

```
ruckus# config
ruckus(config)# wlan-group wlangroup2
ruckus(config-wlangrp)# description "WLAN Group 2"
ruckus(config-wlangrp)# show
WLAN Group:
  ID:
    2:
      Name= wlangroup2
      Description= WLAN Group 2
      WLAN Service:

ruckus(config-wlangrp)#
```

wlan

To add a WLAN service to the WLAN group, use the following command. Enter this command from within the context of the WLAN group that you are configuring.

wlan *WORD*

Syntax Description

wlan

Add a WLAN to the WLAN group

WORD

Name of the WLAN to be added

Defaults

None.

Example

```
rruckus(config-wlangrp)# wlan ruckus1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlangrp)# show
WLAN Group:
  ID:
    :
      Name= wlangroup1
      Description=
      WLAN Service:
        WLAN1:
          NAME= ruckus1
          VLAN=

ruckus(config-wlangrp)#
```

no wlan

To remove a WLAN service from the WLAN group, use the following command. Enter this command from within the context of the WLAN group that you are configuring.

no wlan *WORD*

Syntax Description

no wlan

Delete an existing WLAN service from the WLAN group

WORD

Name of the WLAN to be removed

Defaults

None.

Example

```
ruckus(config-wlangrp)# no wlan ruckus1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlangrp)#
```

wlan vlan override none

To add a WLAN service to the WLAN group and set the VLAN tag to 'No Change', use the following command. Enter this command from within the context of the WLAN group that you are configuring.

wlan *WORD* **vlan override none**

Syntax Description

wlan *WORD*

Add the WLAN to the WLAN group

vlan override none

Set the VLAN tag to No Change

Defaults

None.

Example

```
ruckus(config-wlangrp)# wlan ruckus1 vlan override none
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlangrp)#
```

wlan vlan override tag

To add a WLAN service to the WLAN group and set the VLAN tag to the specified VLAN ID, use the following command:

wlan *NAME* **vlan override tag** *NUMBER*

Syntax Description

wlan *NAME*

Add the *NAME* to the WLAN group

vlan override tag *NUMBER*

Set the VLAN tag of *NAME* to the specified *NUMBER*

Defaults

None.

Example

```
ruckus(config-wlangrp)# wlan ruckus1 vlan override tag 12
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlangrp)#
```

show

To display WLAN group settings, use the following command:

show

Defaults

ruckus(config-wlangrp)# show

WLAN Group:

ID:

1:

Name= Default

Description= Default WLANs for Access Points

WLAN Service:

WLAN1:

NAME= Ruckus1

VLAN=

ruckus(config-wlangrp)#

Configure Role Commands

Use the role commands to configure user roles on the controller. To run these commands, you must first enter the **config-role** context.

role

To create a new role or modify an existing role, use the following command:

role *WORD*

Syntax Description

role

Create or modify a user role

WORD

Name of role

Defaults

None.

Example

```
ruckus(config)# role role1
The role entry 'role1' has been created
ruckus(config-role)#
```

no role

To delete a role entry from the list, use the following command:

no role *WORD*

Syntax Description

no role

Delete a user role

WORD

Name of role

Defaults

None.

Example

```
ruckus(config)# no role role1
The Role 'role1' has been deleted.
ruckus(config)#
```

abort

To exit the config-role context without saving changes, use the abort command. Enter this command from within the context of the role that you are configuring.

abort

Syntax Description

abort

Exit the role without saving changes

Defaults

None.

Example

```
ruckus(config-role)# abort
No changes have been saved.
ruckus(config)#
```

end

To save changes, and then exit the config-role context, use the following command:

end

Syntax Description

end

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-role)# end
The Role entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-role context, use the following command:

exit

Syntax Description

exit

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-role)# exit
The Role entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

quit

To exit the config-role context without saving changes, use the quit command. Enter this command from within the context of the role that you are configuring.

quit

Syntax Description

quit

Exit the role without saving changes

Defaults

None.

Example

```
ruckus(config-role)# quit
No changes have been saved.
ruckus(config)#
```

name

To set the name of a user role, use the following command:

name *WORD*

Syntax Description

name

Set the name of a user role

WORD

Set to this role

Defaults

None.

Example

```
ruckus(config-role)# name guest33
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

description

To set the description for a user role, use the following command:

description *WORD*

Syntax Description

description

Set the description of a user role

WORD

Set to this description

Defaults

None.

Example

```
ruckus(config-role)# description testforCLI
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

group-attributes

To set the group attributes of a user role, use the following command:

group-attributes *WORD*

Syntax Description

group-attributes

Set the attributes of a user role

WORD

Set to this attribute

Defaults

None.

Example

```
ruckus(config-role)# group-attributes ruckus1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

wlan-allowed

To set the WLANs to which a user role will have access, use the following command:

wlan-allowed [**all** | **specify-wlan**]

Syntax Description

wlan-allowed
: Set the WLANs to which a role will have access

all
: Grant access to all WLANs

specify-wlan
: Grant access to a specific WLAN

Defaults

None.

Example

```
ruckus(config-role)# wlan-allowed all
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)# wlan-allowed specify-wlan
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

specify-wlan-access

To adda particular WLAN to the list of WLANs that a user role can access, use the following command:

specify-wlan-access *wlan_ssid*

Syntax Description

specify-wlan-access
: Add access to a WLAN by a user role

wlan_ssid
: Add access to this WLAN

Defaults

None.

Example

```
ruckus(config-role)# specify-wlan-access joejoe98
The wlan 'joejoe98' has been added to the Role.
```

no specify-wlan-access

To remove a particular WLAN from the list of WLANs that a user role can access, use the following command:

no specify-wlan-access *WORD/SSID*

Syntax Description

no specify-wlan-access

Remove access to a WLAN by a user role

WORD/SSID

Remove access to this WLAN

Defaults

None.

Example

```
ruckus(config-role)# no specify-wlan-access joejoe98
The wlan 'joejoe98' has been removed from the Role.
```

guest-pass-generation

To add guest pass generation privileges to a user role, use the following command:

guest-pass-generation

Syntax Description

guest-pass-generation

Add guest pass generation privileges to a user role

Defaults

None.

Example

```
ruckus(config-role)# guest-pass-generation
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no guest-pass-generation

To remove guest pass generation privileges from a user role, use the following command:

no guest-pass-generation

Syntax Description

no guest-pass-generation

Remove guest pass generation privileges from a user role

Defaults

None.

Example

```
ruckus(config-role)# no guest-pass-generation
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

admin

To add ZoneDirector administration privileges to a user role, use the following command:

admin [**super** | **operator** | **monitoring**]

Syntax Description

admin

Add ZoneDirector administration privileges to a user role

super

Sets to Super (Perform all configuration and management tasks)

operator

Sets to Operator (Change settings affecting single AP's only)

monitoring

Sets to Monitoring (Monitoring and viewing operation status only)

Defaults

None.

Example

```
ruckus(config-role)# admin super
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no admin

To remove ZoneDirector administration privileges from a user role, use the following command:

no admin

Syntax Description

no admin

Remove ZoneDirector administration privileges from a user role

Defaults

None.

Example

```
ruckus(config-role)# no admin
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

access-ctrl

Enables access control policy.

Defaults

Disabled

Example

```
ruckus(config)# role role1
The Role entry 'role1' has been created.
ruckus(config-role)# access-ctrl
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)# show
Role:
  ID:
    :
      Name= role1
      Description=
      Group Attributes=
      Guest Pass Generation= Disallowed
      ZoneDirector Administration:
        Status= Disallowed
      Allow All WLANs:
        Mode= Allow Specify WLAN access
      Access Control Policy= Allowed
      Allow All OS Types:
        Mode= Allow all OS types to access
      VLAN = Any
      Rate Limiting Uplink = Disabled
      Rate Limiting Downlink = Disabled

ruckus(config-role)#
```

no access-ctrl

Disables access control policy.

no access-ctrl

dvc-type-allowed

To allow all or specify device type access, use the following command:

os-type-allowed [all|specify]

Example

```
ruckus(config-role)# dvc-type-allowed all
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)#
```

specify-dvc-policy

To add the specified device policy into the role entry, use the following command:

specify-dvc-policy <WORD>

Example

```
ruckus(config-role)# specify-dvc-policy 0

ruckus(config-role)#
```

vlan

Sets the VLAN ID to the specified ID number or "none"

vlan *NUMBER*

rate-limit uplink

Sets the rate limiting of uplink.

rate-limit uplink *NUMBER*

rate-limit uplink downlink

Sets the rate limiting of downlink.

rate-limit uplink *NUMBER* **downlink** *NUMBER*

no rate-limit

Sets rate limiting to Disable.

no rate-limit

apply-arc-policy

To configure an ARC policy with the specified name, use the following command:

apply-arc-policy*<WORD>*

Syntax Description

apply-arc-policy

Configures an Application Recognition and Control policy with the specified name.

WORD

Name of the ARC policy.

Defaults

None.

Example

```
ruckus(config-role)# apply-arc-policy Facebook
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)#
```

no apply-arc-policy

To disable ARC policy, use the following command:

no apply-arc-policy

Example

```
ruckus(config-role)# no apply-arc-policy
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)#
```

url-filtering

To configure URL Filtering with the specified name, use the following command:

url-filtering *WORD*

Defaults

None

Example

```
ruckus(config-role)# url-filtering filter1
Sorry, Please Enable 'Access Control Policy' firstly, then try again.
ruckus(config-role)#
```

no url-filtering

To disable URL filtering, use the following command:

no url-filtering

Defaults

None

Example

```
ruckus(config-role)# no url-filtering
Sorry, Please Enable 'Access Control Policy' firstly, then try again.
ruckus(config-role)#
```

show

To display the settings of a role, use the following command:

show

Syntax Description

show

Display the settings of a role

Defaults

None.

Example

```
ruckus(config-role)# show
Role:
  ID:
    :
      Name= role1
      Description=
      Group Attributes=
      Guest Pass Generation= Disallowed
      ZoneDirector Administration:
        Status= Disallowed
      Allow All WLANs:
        Mode= Allow Specify WLAN access
      Access Control Policy= Disallowed

ruckus(config-role)#
```

Configure VLAN Pool Commands

Use the vlan-pool commands to create and configure a VLAN pool. Running these commands enters the **config-vlan-pool** context from within the **config** context.

vlan-pool

To create a new VLAN pool or modify an existing pool, and enter the config-vlan-pool context, use the following command:

vlan-pool *WORD*

Syntax Description

abort
Exits the config-vlanpool context without saving changes.

end
Saves changes, and then exits the config-vlanpool context.

exit
Saves changes, and then exits the config-vlanpool context.

quit
Exits the config-vlanpool context without saving changes.

name *WORD*
Sets the vlan pool entry name.

description *WORD*
Sets the vlan pool entry description.

vlan
Adds or deletes vlans from the vlan pool.

vlan add *WORD*
Add the vlan to the specified pool.

vlan delete *WORD*
Delete the vlan from the specified pool.

vlan show

option *NUMBER*
Set the option 1 'Mac Hash' 2 'Round-Robin' 3 'Least-Used' to the specified pool.

show
Displays pool settings.

Example

```
ruckus(config)# vlan-pool vlan-pool-1
The vlan pool entry 'vlan-pool-1' has been created.
ruckus(config-vlanpool)# description "vlan pool for printers"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-vlanpool)# option 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-vlanpool)# vlan add 10
ruckus(config-vlanpool)# vlan add 20
```

```
ruckus(config-vlanpool)# vlan add 30
ruckus(config-vlanpool)# vlan add 50-56
ruckus(config-vlanpool)# show
VLAN Pool:
  ID:
    :
      Name = vlan-pool-1
      Description = vlan pool for printers
      Option = 1
      VLANSET = 10,20,30,50-56

ruckus(config-vlanpool)# end
The vlan pool entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

no vlan-pool

To delete a VLAN pool, use the following command:

no vlan-pool *WORD*

Example

```
ruckus(config)# no vlan-pool vlan-pool-1
The vlan pool 'vlan-pool-1' has been deleted.
ruckus(config)#
```

Configure User Commands

Use the user commands to configure a user's name, password, and role. To run these commands, you must first enter the **config-user** context.

user

To create a user or modify an existing user and enter the config-user context, use the following command:

user *WORD*

Syntax Description

user

Create or modify a user entry

WORD

Name of the user

Defaults

None.

Example

```
ruckus(config)# user johndoe1
The User entry 'johndoe1' has been created.
ruckus(config-user)#
```

no user

To delete a user record, use the following command:

no user *WORD*

Syntax Description

user

Create or modify a user entry

WORD

Name of the user

Defaults

None.

Example

```
ruckus(config)# no user johndoe1
The User 'johndoe1' has been deleted.
ruckus(config)#
```

abort

To exit the config-user context without saving changes, use the abort command. Enter this command from within the context of the user that you are configuring.

abort

Syntax Description

abort

Exit the user settings without saving changes

Defaults

None.

Example

```
ruckus(config-user)# abort
No changes have been saved.
ruckus(config)#
```

end

To save changes, and then exit the config-user context, use the following command (you must first set a password before exiting):

end

Syntax Description

end

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-user)# end
The User entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-user context, use the following command (you must first set a password before exiting):

exit

Syntax Description

exit

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-user)# exit
The User entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

quit

To exit the config-user context without saving changes, use the quit command. Enter this command from within the context of the user that you are configuring.

quit

Syntax Description

quit

Exit the user settings without saving changes

Defaults

None.

Example

```
ruckus(config-role)# quit
No changes have been saved.
ruckus(config)#
```

user-name

To set the name of a user, use the following command:

user-name *WORD*

Syntax Description

user-name

Set the name of a user

WORD

Set to this user name

Defaults

None.

Example

```
ruckus(config-user)# user-name joe1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

full-name

To set the full name of a user, use the following command:

full-name *WORD*

Syntax Description

full-name

Set the full name of a user

WORD

Set to this full name

Defaults

None.

Example

```
ruckus(config-user)# full-name joeblow
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

password

To set the password of a user, use the following command:

password *WORD*

Syntax Description

password

Set the password of a user

WORD

Set to this password

Defaults

None.

Example

```
ruckus(config-user)# password 12345678
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

role

To assign a role to a user, use the following command:

role *WORD*

Syntax Description

role

Assign a role to a user.

WORD

The name of the role to be assigned to the user.

Defaults

Default

Example

```
ruckus(config-user)# role guest
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

show

To display the settings of a user, use the following command:

show

Syntax Description

show

Show user settings

Defaults

None.

Example

```
ruckus(config-user)# show
User:
  ID:
    :
      User Name= Joe
      Full Name= Joe Blow
      Password= ********
      Role= Default
```

```
ruckus(config-user)#
```

Configure Guest Access Commands

Use the guest-access commands to configure guest access services. To run these commands, you must first enter the **config-guest-access** context.

guest-access

To create/configure a Guest Access service and enter the config-guest-access context, use the following command:

guest-access *WORD*

Example

```
ruckus(config)# guest-access guestpolicy1
The Guest Access entry 'guestpolicy1' has been created.
ruckus(config-guest-access)#
```

no guest-access

To delete a Guest Access service, use the following command:

no guest-access

Example

```
ruckus(config)# no guest-access guest1
The Guest Access 'guest1' has been deleted.
ruckus(config)#
```

abort

To exit the config-guest-access context without saving changes, use the abort command.

abort

end

To save changes, and then exit the config-guest-access context, use the following command:

end

exit

To save changes, and then exit the config-guest-access context, use the following command:

exit

quit

To exit the config-guest-access context without saving changes, use the quit command.

quit

guest-access-force-https-redirection

Enables guest access force HTTPS redirection.

Syntax

guest-access-force-https-redirection

Command Default

Disabled

Examples

```
ruckus(config)# guest-access-force-https-redirection
The command was executed successfully.
ruckus(config)#
```

no guest-access-force-https-redirection

Disables guest access force HTTPS redirection.

Syntax

no guest-access-force-https-redirection

Command Default

Disabled.

Examples

```
ruckus(config)# no guest-access-force-https-redirection
The command was executed successfully.
ruckus(config)#
```

guest-access-guestpass-effective

To oset the guest pass effective date to begin from the creation time or from first use, use the following command:

guest-access-guestpass-effective [**now**|**first-use-expired <NUMBER>**]

Syntax Description

now

Sets Effective from the creation time.

first-use-expired <NUMBER>

Effective from first use, Expire new guest passes if not used within xx days.

Example

```
ruckus(config-guest-access)# guest-access-guestpass-effective first-use-expired 10
The command was executed successfully.
ruckus(config-guest-access)#
```

name

To set the name of the guest access policy, use the following command:

name *WORD*

self-service

To enable guest pass self-registration, use the following command:

self-service

no self-service

To disable guest pass self-registration, use the following command:

no self-service

guestpass-duration

To set the guest pass duration, use the following command:

guestpass-duration [**hour** | **day** | **week**] *NUMBER*

guestpass-reauth

To set the guest pass reauthorization timeout, use the following command:

guestpass-reauth [**hour** |**day** | **week**] *NUMBER*

no guestpass-reauth

To disable guest pass reauthorization timeout, use the following command:

no guestpass-reauth

guestpass-share-number

To set the limit on how many devices can share one guest pass, use the following command (valid values: [0, 10] and 0 means unlimited):

guestpass-share-number *NUMBER*

guestpass-sponsor

To enable guest pass sponsor approval, use the following command:

guestpass-sponsor

no guestpass-sponsor

To disable guest pass sponsor approval, use the following command:

no guestpass-sponsor

guestpass-sponsor-auth-server

Sets the authentication server to 'Local Database' or to a specified AAA server name, use the following command:

guestpass-sponsor-auth-server [**local** | **name** *WORD*]

guestpass-sponsor-number

To set the number of sponsors that can be used for this guest pass service (valid values: [1,5]), use the following command:

guestpass-sponsor-number *NUMBER*

guestpass-notification

To set the notification method for delivering guest passes, use the following command:

guestpass-notification *NUMBER*

Syntax Description

1

Device Screen

2

Mobile

3

Emai

4
Mobile and Email

guestpass-terms-and-conditions

To enable and set the terms and conditions, use the following command:

guestpass-terms-and-conditions *WORD*

no guestpass-terms-and-conditions

To disable the terms and conditions, use the following command:

no guestpass-terms-and-conditions

onboarding

To configure onboarding portal options, use the following command:

onboarding [**key-and-zeroit**|**zeroit**]

Syntax Description

onboarding
Enable onboarding portal.

key-and-zeroit
Enables guest pass and zero-it activation.

zeroit
Enables zero-it activation only.

Defaults

Enabled, Guest Pass and Zero-IT.

Example

```
ruckus(config-guest-access)# onboarding key-and-zeroit
The command was executed successfully.
ruckus(config-guest-access)#
```

no onboarding

To disable the onboarding portal, use the following command:

no onboarding

no authentication

To disable guest access authentication, use the following command:

no authentication

Syntax Description

no authentication

Disable guest access authentication

Defaults

Enabled.

Example

```
ruckus(config-guest-access)# no authentication
The command was executed successfully.
```

authentication guest-pass-and-social-login

To enable guest pass and social media login authentication for this guest access service, use the following command:

authentication guest-pass-and-social-login

Syntax Description

authentication guest-pass-and-social-login

Enable guest pass and social media authentication.

Example

```
ruckus(config-guest-access)# authentication guest-pass-and-social-login
The command was executed successfully.
ruckus(config-guest-access)#
```

authentication only-social-login

To enable social media login only for this guest access service, use the following command:

authentication only-social-login

Syntax Description

authentication only-social-login
Enable social media authentication only.

Example

```
ruckus(config-guest-access)# authentication only-social-login
The command was executed successfully.
ruckus(config-guest-access)#
```

no term-of-use

To hide the Terms of Use text on the guest pass access page, use the following command:

no term-of-use

Syntax Description

no term-of-use
Hide Terms of Use

Defaults

Disabled.

Example

```
ruckus(config-guest-access)# no term-of-use
The command was executed successfully.
```

term-of-use

To display and specify the Terms of Use text on the guest pass access page, use the following command:

term-of-use *WORD*

Syntax Description

term-of-use
Display Terms of Use

WORD
Display this text as content of Terms of Use on Guest Pass access page

Defaults

Disabled.

Example

```
ruckus(config-guest-access)# term-of-use test.guest
The command was executed successfully.
```

redirect

To set the URL to which to redirect a guest user after passing authentication, use the following command:

redirect [**original** | **url** *WORD*]

Syntax Description

redirect

Set the URL to which the guest user will be redirected

original

Redirect user to the original page that he intended to visit

url *WORD*

Redirect user to a different URL. Specify the URL in *WORD*.

Defaults

original

Example

```
ruckus(config-guest-access)# redirect url http://www.ruckuswireless.com
The command was executed successfully.
```

welcome-text

To configure the text to display on the guest access user login page, use the following command:

welcome-text *WORD*

Syntax Description

welcome-text

Configure the welcome message

WORD

Use this as the welcome message

Defaults

Welcome to the Guest Access login page.

Example

```
ruckus(config-guest-access)# welcome-text “Welcome to the Guest Access Login Page.”
The command was executed successfully.
ruckus(config-guest-access)#
```

walled-garden

Syntax

walled-garden *<INDEX> <WORD>*

Command Default

None.

Parameters

<INDEX>

Enter a number (1-35) for this walled garden entry.

<WORD>

Enter the URL to be added to the walled garden rules.

Examples

```
ruckus(config-guest-access)# walled-garden 1 www.google.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-guest-access)#
```

no walled-garden

Syntax

no walled-garden *<INDEX>*

Command Default

None.

Parameters

<INDEX>

Enter a number (1-35) for this walled garden entry.

Examples

```
ruckus(config-guest-access)# no walled-garden 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-guest-access)#
```

social-media-login

To set the social media login, use the following command:

social-media-login *WORD*

Syntax

<WORD>: Specify the social media login type:

- google <WORD> <WORD>: Sets the social media login to Google/Google+
- linkedin <WORD> <WORD>: Sets the social media login to LinkedIn
- microsoft <NUMBER> <WORD> <WORD>: Sets the social media login to Microsoft
- wechat <WORD> <WORD> <WORD> <WORD>: Sets the social media loging to WeChat.

Example

```
ruckus(config-guest-access)# social-media-login linkedin 1234456 test1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-guest-access)#
```

social-media-login delete-social-media

To delete the social media, use the following command:

social-media-login delete-social-media <NUMBER>

Syntax Description

<NUMBER>

Delete the social media, google:3 linkdin:4 microsoft:5 wechat:6

Example

```
ruckus(config-guest-access)# social-media-login delete-social-media 3
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-guest-access)#
```

social-media-login google

To set the social media login to Google/Google+, use the following command:

social-media-login google NUMBER *WORD WORD*

NUMBER

Enter the redirection method 0:HTTP 1:HTTPS.

WORD

Enter the client ID.

WORD

Enter the client secret.

social-media-login hds

To set the social media login host domain list, use the following command:

social-media-login hds *<WORD>*

social-media-login no hds

To clear the social media login host domain list, use the following command:

social-media-login no hds

social-media-login linkedin

To set the social media login to LinkedIn, use the following command

social-media-login linkedin *WORD WORD*

social-media-login microsoft

To sets the social media login to Microsoft, use the following command:

social-media-login microsoft *NUMBERWORD WORD*

social-media-login wechat

To sets the social media login to WeChat, use the following command:

social-media-login wechat *WORDWORD WORDWORD*

social-media-login wechat force-follow

To set the WeChat social media WLAN to force follow , use the following command:

social-media-login wechat *WORDWORD WORDWORD* force-follow *WORD*

show

To display the guest access policy settings, use the following command:

show

Syntax Description

show

Display the guest access settings

Example

```
ruckus(config-guest-access)# show
Guest Access:
  Name = guest1
  Onboarding Portal:
    Disabled
  Authentication:
    Mode = Use Guest Pass and Social login authentication
  Effective time:
    Countdown-by-issued = false
    Effective Period    = 7 Days
  Title = Welcome to Guest WiFi !
  Terms of Use:
    Status = Disabled
  Redirection:
    Mode = To the URL that the user intends to visit
  Self Service Registration:
    Status              = Disabled
  Wall Garden:

  Restricted Subnet Access:
      Rules:
        1:
          Description=
          Type= Deny
          Source Address= Any
          Destination Address= local
          Source Port= Any
          Destination Port= Any
          Protocol= Any
        2:
          Description=
          Type= Deny
          Source Address= Any
          Destination Address= 10.0.0.0/8
          Source Port= Any
          Destination Port= Any
          Protocol= Any
        3:
```

```
          Description=
          Type= Deny
          Source Address= Any
          Destination Address= 172.16.0.0/12
          Source Port= Any
          Destination Port= Any
          Protocol= Any
        4:
          Description=
          Type= Deny
          Source Address= Any
          Destination Address= 192.168.0.0/16
          Source Port= Any
          Destination Port= Any
          Protocol= Any

  Restricted IPv6 Access:
      Rules:
        1:
          Description=
          Type= Deny
          Source Address= Any
          Destination Address= local
          Source Port= Any
          Destination Port= Any
          Protocol= Any
          ICMPv6 Type= Any

ruckus(config-guest-access)#
```

web-portal-force-https-redirection

Enables web portal force HTTPS redirection.

Syntax

web-portal-force-https-redirection

Command Default

Disabled.

Examples

```
ruckus(config)# web-portal-force-https-redirection
The command was executed successfully.
ruckus(config)#
```

no web-portal-force-https-redirection

Disables web portal force HTTPS redirection.

Syntax

no web-portal-force-https-redirection

Command Default

Disabled.

Examples

```
ruckus(config)# no web-portal-force-https-redirection
The command was executed successfully.
ruckus(config)#
```

portal-auth-force-dns-server

Enables portal authentication WLAN (Hotspot Service, Guest Access and Web Authentication) force DNS server.

Syntax

portal-auth-force-dns-server <IP/IPv6-ADDR1 [IP/IPv6-ADDR2]>

Command Default

Disabled

Examples

```
ruckus(config)# portal-auth-force-dns-server 192.168.40.10
The command was executed successfully.
ruckus(config)#
```

no portal_auth-force-dns-server

Disable portal authentication WLAN (Hotspot Service, Guest Access and Web Authentication) force DNS server.

Syntax

no portal_auth-force-dns-server

Command Default

Disabled

Examples

```
ruckus(config)# no portal_auth-force-dns-server
The command was executed successfully.
ruckus(config)#
```

guest-access-auth-server

Sets the authentication server to 'Local Database' or to a specified AAA server.

Syntax

guest-access-auth-server { **local** | **name** <*WORD*>]

Command Default

None

Parameters

local

Sets the authentication server to 'Local Database'.

name <WORD>

Sets the authentication server to specified AAA server name.

Examples

```
ruckus(config)# guest-access-auth-server name radius1
The command was executed successfully.
ruckus(config)#
```

Configuring Guest Access Restriction Rules

Use the following commands to configure restricted access rules for a guest policy. To use these commands, you must enter the **config-guest-restrict-access** context from within the **config-guest-access** context.

no restrict-access-order

To delete a restrict access order, use the following command:

no restrict-access-order *NUMBER*

Syntax Description

no restrict-access-order

Delete a restrict access order

NUMBER

Delete this order ID

Example

```
ruckus(config-guest-access)# no restrict-access-order 4
The Restricted Subnet Access entry has been removed from the Guest Access.
ruckus(config-guest-access)#
```

restrict-access-order

To create a new restrict access order or modify an existing restrict access order, use the following command:

restrict-access-order *NUMBER*

This command enters the config-guest-restrict-access context. The following commands are available from within this context:

Syntax Description

help
Shows available commands

history
Shows a list of previously run commands.

abort
Exits the config-guest-restrict-access context without saving changes.

end
Saves changes, and then exits the config-guest-restrict-access context.

exit
Saves changes, and then exits the config-guest-restrict-access context.

quit
Exits the config-guest-restrict-access context without saving changes.

order *NUMBER*
Sets the guest access rule order.

description *WORD*
Sets the guest access rule description.

type [**allow** | **deny**]
Sets the guest access rule type to allow or deny.

destination [**address** *ADDR* | **port** *NUMBER/WORD*
Sets the destination address/port of a guest access rule.

protocol *NUMBER/WORD*
Sets the protocol of a guest access rule.

show
Displays restricted subnet access settings.

show

To display guest access restriction settings, use the following command:

show

Syntax Description

show
Display guest access restriction settings

Defaults

None.

order

To configure the guest access rule order, use the following command:

order *NUMBER*

Syntax Description

order

Set the order of a guest access rule

NUMBER

Assign the rule this order

Example

```
ruckus(config-guest-restrict-access)# order 3
The command was executed successfully.
```

description

To set the description of a guest access rule, use the following command:

description *WORD*

Syntax Description

description

Set the description of a guest access rule

WORD

Set this as description

Defaults

None.

Example

```
ruckus(config-guest-restrict-access)# description guestd3
The command was executed successfully.
```

type allow

To set the guest access rule type to ‘allow’, use the following command:

type allow

Syntax Description

type

Set the guest access rule type

allow

Set the rule type to ‘allow’

Defaults

Deny.

Example

```
ruckus(config-guest-restrict-access)# type allow
The command was executed successfully.
```

type deny

To set the guest access rule type to ‘deny’, use the following command:

type deny

Syntax Description

type

Set the guest access rule type

deny

Set the rule type to ‘deny’

Defaults

Deny.

Example

```
ruckus(config-guest-restrict-access)# type deny
The command was executed successfully.
```

destination address

To set the destination address of the rule, use the following command:

destination address *IP-ADDR/WORD*

Syntax Description

destination address

Set the destination address of the rule

IP-ADDR/WORD

Set the destination to this IP address

Defaults

Any.

Example

```
ruckus(config-guest-restrict-access)# destination address 192.168.0.20/24
The command was executed successfully.
```

destination port

To set the destination port of the rule, use the following command:

destination port *NUMBER/WORD*

Syntax Description

destination port

Set the destination port of the rule

NUMBER/WORD

Set the destination to this port number

Defaults

Any.

Example

```
ruckus(config-guest-restrict-access)# destination port 562
The command was executed successfully.
```

protocol

To set the protocol for the rule, use the following command:

protocol *NUMBER/WORD*

Syntax Description

protocol

Set the protocol for the rule

NUMBER/WORD

Set to this protocol

Defaults

Any.

Example

```
ruckus(config-guest-restrict-access)# protocol 69
The command was executed successfully.
```

IPv6 Guest Restrict Access Commands

Use the IPv6 guest restrict access commands to configure IPv6 restrict access rules. To run these commands, you must first enter the **config-ipv6-guest-restrict-access** context.

no restrict-access-order-ipv6

To delete a restrict access order, use the following command:

no restrict-access-order-ipv6 *NUMBER*

Syntax Description

no restrict-access-order-ipv6
: Delete a restrict access order

NUMBER
: Delete this order ID

Defaults

None.

Example

```
ruckus(config-guest-access)# no restrict-access-order-ipv6 2
The IPv6 Restricted Subnet Access entry has been removed from the Guest Access.
ruckus(config-guest-access)#
```

restrict-access-order-ipv6

To create a new restrict access order or modify an existing restrict access order, use the following command:

restrict-access-order-ipv6 *NUMBER*

This command enters the **config-ipv6-guest-restrict-access** context. The following commands are available from within this context:

Syntax Description

help
: Shows available commands

history
: Shows a list of previously run commands.

abort
: Exits the config-guest-restrict-access context without saving changes.

end
: Saves changes, and then exits the config-guest-restrict-access context.

exit
: Saves changes, and then exits the config-guest-restrict-access context.

quit

Exits the config-guest-restrict-access context without saving changes.

order *NUMBER*

Sets the guest access rule order.

description *WORD*

Sets the guest access rule description.

type [**allow** | **deny**]

Sets the guest access rule type to allow or deny.

destination [**address** *IPv6-ADDR* | port *NUMBER/WORD*

Sets the destination address/port of a guest access rule.

protocol *NUMBER/WORD*

Sets the protocol of a guest access rule.

icmpv6-type

Sets the ICMPv6 type of a Guest Access rule.

show

Displays restricted subnet access settings.

Example

```
ruckus(config-guest-access)# restrict-access-order-ipv6 2
ruckus(config-ipv6-guest-restrict-access)# type allow
The command was executed successfully.
ruckus(config-ipv6-guest-restrict-access)# show
          Description=
          Type= Allow
          Destination Address= Any
          Destination Port= Any
          Protocol= Any
          ICMPv6 Type= Any
ruckus(config-ipv6-guest-restrict-access)# end
The IPv6 Restricted Subnet Access entry has been added to the Guest Access.
Your changes have been saved.
ruckus(config-guest-access)#
```

show

To display guest access restriction settings, use the following command:

show

Syntax Description

show

Display guest access restriction settings

Example

```
ruckus(config-ipv6-guest-restrict-access)# show
          Description=
          Type= Allow
          Destination Address= Any
          Destination Port= Any
```

```
          Protocol= Any
          ICMPv6 Type= Any
ruckus(config-ipv6-guest-restrict-access)#
```

order

To configure the guest access rule order, use the following command:

order *NUMBER*

Syntax Description

order

Set the order of a guest access rule

NUMBER

Assign the rule this order

Defaults

None.

Example

```
ruckus(config-ipv6-guest-restrict-access)# order 3
The command was executed successfully.
```

description

To set the description of a guest access rule, use the following command:

description *WORD*

Syntax Description

description

Set the description of a guest access rule

WORD

Set this as description

Defaults

None.

Example

```
ruckus(config-ipv6-guest-restrict-access)# description guestd3
The command was executed successfully.
```

type allow

To set the guest access rule type to ‘allow’, use the following command:

type allow

Syntax Description

type
Set the guest access rule type

allow
Set the rule type to ‘allow’

Defaults

Deny.

Example

```
ruckus(config-ipv6-guest-restrict-access)# type allow
The command was executed successfully.
```

type deny

To set the guest access rule type to ‘deny’, use the following command:

type deny

Syntax Description

type
Set the guest access rule type

deny
Set the rule type to ‘deny’

Defaults

Deny.

Example

```
ruckus(config-ipv6-guest-restrict-access)# type deny
The command was executed successfully.
```

destination address

To set the destination address of the rule, use the following command:

destination address *IP-ADDR/WORD*

Syntax Description

destination address

Set the destination address of the rule

IP-ADDR/WORD

Set the destination to this IP address

Defaults

None.

Example

```
ruckus(config-ipv6-guest-restrict-access)# destination address fe80::/64
The command was executed successfully.
ruckus(config-ipv6-guest-restrict-access)#
```

destination port

To set the destination port of the rule, use the following command:

destination port *NUMBER/WORD*

Syntax Description

destination port

Set the destination port of the rule

NUMBER/WORD

Set the destination to this port number

Defaults

None.

Example

```
ruckus(config-ipv6-guest-restrict-access)# destination port 562
The command was executed successfully.
```

protocol

To set the protocol for the rule, use the following command:

protocol *NUMBER/WORD*

Syntax Description

protocol

Set the protocol for the rule

NUMBER/WORD
Set to this protocol

Defaults

None.

Example

```
ruckus(config-ipv6-guest-restrict-access)# protocol 69
The command was executed successfully.
```

icmpv6-type

To set the ICMPv6 type of a Guest Access rule, use the following command:

icmpv6-type [**any** | **number** *NUMBER*]

Defaults

Any.

Example

```
ruckus(config-ipv6-guest-restrict-access)# icmpv6-type any
The command was executed successfully.
ruckus(config-ipv6-guest-restrict-access)#
```

Configure Hotspot Commands

Use the hotspot commands to configure the controller's hotspot settings. To run these commands, you must first enter the **config-hotspot** context.

hotspot

To create a new hotspot or edit an existing entry and enter the config-hotspot context, use the following command:

hotspot *WORD*

Syntax Description

hotspot

Create or edit a hotspot service

WORD

Name of hotspot service

Defaults

None.

Example

```
ruckus(config)# hotspot hotspot1
The Hotspot entry 'hotspot1' has been loaded. To save the Hotspot entry, type end or exit.
ruckus(config-hotspot)#
```

no hotspot

To delete a hotspot record from the list, use the following command:

no hotspot *WORD*

Syntax Description

hotspot

Create or edit a hotspot service

WORD

Name of hotspot service

Defaults

None.

Example

```
ruckus(config)# hotspot hotspot1
The Hotspot entry 'hotspot1' has been loaded. To save the Hotspot entry, type end or exit.
ruckus(config-hotspot)#
```

abort

To exit the config-hotspot context without saving changes, use the abort command.

abort

Syntax Description

abort

Exit the hotspot settings without saving changes

Defaults

None.

Example

```
ruckus(config-hotspot)# abort
No changes have been saved.
ruckus(config)#
```

end

To save changes, and then exit the config-hotspot context, use the following command:

end

Syntax Description

end

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-hotspot)# end
The login page url can't be empty.
ruckus(config-hotspot)# end
The Hotspot entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-hotspot context, use the following command:

exit

Syntax Description

exit

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-hotspot)# exit
The login page url can't be empty
ruckus(config-hotspot)# exit
The Hotspot entry has saved successfully.
Your changes have been saved.
```

quit

To exit the config-hotspot context without saving changes, use the quit command.

quit

Syntax Description

quit

Exit the hotspot settings without saving changes

Defaults

None.

Example

```
ruckus(config-hotspot)# quit
No changes have been saved.
ruckus(config)#
```

show

To display the current hotspot settings, use the following command:

show

Syntax Description

show

Display the current hotspot settings

Defaults

None.

Example

```
ruckus(config-hotspot)# show
Hotspot:
ID:
1:
Name= h1
Login Page Url= http://172.18.110.122
Start Page= redirect to the URL that the user intends to visit.
Session Timeout= Disabled
Idle Timeout= Enabled
Timeout= 60 Minutes
Authentication Server= Local Database
Accounting Server= Disabled
Location ID=
Location Name=
Walled Garden 1=
Walled Garden 2=
Walled Garden 3=
Walled Garden 4=
Walled Garden 5=
Rules:
Order= 1
Description= h1_order1
Type= Deny
Destination Address= 192.168.20.20/24
Destination Port= 920
Protocol= 58
```

name

To set the hotspot name, use the following command

name *WORD*

Syntax Description

name

Set the hotspot name

WORD

Set to this name

Defaults

None.

Example

```
ruckus(config-hotspot)# name ruckus1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

smartclient

Use the following command to enable WISPr smart client support

smartclient [**secure https**] [**secure http**] [**wispr-only secure https**] [**wispr-only secure-http**] [**info**]

Syntax Description

smartclient
: Enable WISPr smartclient support.

secure https
: Enables WISPr smart client support with HTTPS security.

secure http
: Enables WISPr smart client support with no security.

wispr-only secure https
: Enables only WISPr smart client support with HTTPS security.

wispr-only secure http
: Enables only WISPr smart client support with no security.

info
: Sets the instruction to guide user to login by Smart Client application.

Defaults

None.

Example

```
ruckus(config-hotspot)# smartclient secure https
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

no smartclient

To disable WISPr Smart Client support, use the following command:

no smartclient

login-page

To set the URL of the hotspot login, use the following command:

login-page [**original** | *WORD*]

Syntax Description

login-page
: Set the URL of the hotspot login

WORD
: Set to this URL

original
: Redirect to the URL that the user intends to visit

Defaults

None.

Example

```
ruckus(config-hotspot)# login-page http://ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

start-page

To set the URL or page to which the user will be redirected after logging into the hotspot, use the following command:

start-page [**original** | **url** *WORD*]

Syntax Description

start-page

Set the URL or page to which the user will be redirected after logging into the hotspot

original

Redirect user to the original page he or she intended to visit

url *WORD*

Redirect use to another page. Set the URL of the page in *WORD*.

Defaults

original

Example

```
ruckus(config-hotspot)# start-page url  http://www.ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no session-timeout

To disable the session timeout for hotspot usage, use the following command:

no session-timeout

Syntax Description

no session-timeout

Disable the session timeout for hotspot usage

Defaults

None.

Example

```
ruckus(config-hotspot)# no session-timeout
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

session-timeout

To enable and set the session timeout for hotspot usage, use the following command:

session-timeout *minutes*

Syntax Description

session-timeout

Disable the session timeout for hotspot usage

minutes

Set the session timeout to this value (in minutes)

Defaults

1440 minutes

Example

```
ruckus(config-hotspot)# session-timeout 20
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no grace-period

To disable the grace period (idle timeout) for hotspot users, use the following command:

no grace-period

Syntax Description

no grace-period

Disable the idle timeout for hotspot users

Defaults

None.

Example

```
ruckus(config-hotspot)# no grace-period
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

grace-period

To enable and set the grace period (idle timeout) for hotspot users, use the following command:

grace-period *minutes*

Syntax Description

grace-period

Set the idle timeout for hotspot users

minutes

Set the idle timeout to this value (in minutes)

Defaults

60 minutes

Example

```
ruckus(config-hotspot)# grace-period 20
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

auth-server local

To use ZoneDirector as the authentication server for hotspot users, use the following command:

auth-server local

Syntax Description

auth-server

Set an authentication server for hotspot users

local

Use ZoneDirector as the authentication server

Defaults

local

Example

```
ruckus(config-hotspot)# auth-server local
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

auth-server name

To use an external server for authenticating hotspot users, use the following command:

auth-server name *WORD*

Syntax Description

auth-server name

Set an external authentication server for hotspot users

WORD

Use this server as the authentication server

Defaults

None.

Example

```
ruckus(config-hotspot)# auth-server name radius1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

auth-server name no-mac-bypass

To disable MAC authentication bypass (no redirection), use the following command:

auth-server name *WORD* **no-mac-bypass**

auth-server name mac-bypass

To enable MAC authentication bypass (no redirection) and use password as authentication password, use the following command:

auth-server name *WORD* **mac-bypass** [**mac** | **password** *WORD*]

Syntax Description

auth-server name

Set an external authentication server for hotspot users

WORD

Authentication server name

mac-bypass

Enable MAC auth bypass

mac

Enables MAC authentication bypass (no redirection) and use device MAC address as authentication password.

password *WORD*

Enables MAC authentication bypass (no redirection) and use password as authentication password.

mac-in-dot1x

Use device MAC address as authentication password and enable to send username and password in 802.1X format of 00-10-A4-23-19-C0 (by default 0010a42319c0).

password-in-dot1x *WORD*

Use password as authentication password and enable to send username and password in 802.1X format of 00-10-A4-23-19-C0 (by default 0010a42319c0).

Defaults

None.

Example

```
ruckus(config-hotspot)# auth-server name radius1 mac-bypass mac
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

auth-server name mac-bypass mac-addr-format

To set MAC auth username and password to one of the following formats, use the following command:

auth-server name *WORD* **mac-bypass mac-addr-format** [**FORMAT**]

Syntax Description

auth-server name
: Set an external authentication server for hotspot users

WORD
: Authentication server name

mac-bypass
: Enable MAC auth bypass

mac-addr-format
: Enable MAC authentication bypass (no redirection) and use device MAC address as authentication password.

[**FORMAT**]
: Set the MAC address format.

aabbccddeeff
: Set the MAC address format to aabbccddeeff.

aa-bb-cc-dd-ee-ff
: Set the MAC address format to aa-bb-cc-dd-ee-ff.

aa:bb:cc:dd:ee:ff
: Set the MAC address format to aa:bb:cc:dd:ee:ff.

AABBCCDDEEFF
: Set the MAC address format to AABBCCDDEEFF.

AA-BB-CC-DD-EE-FF
: Set the MAC address format to AA-BB-CC-DD-EE-FF.

AA:BB:CC:DD:EE:FF
: Set the MAC address format to AA:BB:CC:DD:EE:FF.

acct-server

To enable the accounting server for hotspot usage, use the following command:

acct-server *WORD*

Syntax Description

acct-server

Enable the accounting server for hotspot usage

WORD

Name of the AAA server

Defaults

None.

Example

```
ruckus(config-hotspot)# acct-server "RADIUS Accounting"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

no acct-server

To disable the accounting server for hotspot usage, use the following command:

no acct-server

Syntax Description

no acct-server

Disable the accounting server for hotspot usage

Defaults

None.

Example

```
ruckus(config-hotspot)# no acct-server
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

acct-server interim-update

To enable and set the accounting server for hotspot usage, use the following command:

acct-server *WORD* **interim-update** *NUMBER*

Syntax Description

no acct-server

Enable and set the accounting server for hotspot usage

WORD

Set to this accounting server

interim-update
Set the interim update interval

NUMBER
Set to this interval (in minutes)

Defaults

5 minutes

Example

```
ruckus(config-hotspot)# acct-server asd interim-update 10
The AAA server 'asd' could not be found. Please check the spelling, and then try again.
ruckus(config-hotspot)# acct-server acct1 interim-update 20
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

client-isolation

To enable wireless client isolation (on AP or across APs), use the following command:

client-isolation [**isolation-on-ap** | **isolation-across-ap**] [**enable** | **disable**]

Syntax Description

client-isolation
Enable client isolation.

isolation-on-ap
Enable client isolation per AP.

isolation-on-subnet
Enable spoof guarding and across AP client isolation using whitelist.

Defaults

Disabled

Example

```
ruckus(config-hotspot)# client-isolation isolation-on-ap enable
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)# client-isolation isolation-on-subnet enable
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

whitelist

To apply a client isolation whitelist to this Hotspot, use the following command:

whitelist name *WORD*

location-id

To set the location ID of the hotspot, use the following command:

location-id *location-id*

Syntax Description

location-id
Set the location ID of the hotspot

location-id
Set to this location ID

Defaults

None.

Example

```
ruckus(config-hotspot)# location-id us
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

location-name

To set the location name of the hotspot, use the following command:

location-name *location-name*

Syntax Description

location-name
Set the location name of the hotspot

location-name
Set to this location name

Defaults

None.

Example

```
ruckus(config-hotspot)# location-name shenzhen
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

walled-garden

To set a hotspot “walled garden” URL, use the following command:

walled-garden *INDEX WORD*

Syntax Description

walled-garden
Create a walled garden rule

INDEX
Enter walled garden URL index. (1~35)

WORD
Destination URL

Defaults

None.

Example

```
ruckus(config-hotspot)# walled-garden 1 www.ruckuswireless.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

no walled-garden

To delete a walled garden URL, use the following command

no walled-garden *INDEX*

Syntax Description

walled-garden
Delete a walled garden rule

INDEX
Enter walled garden URL index. (1~35)

Defaults

None.

Example

```
ruckus(config-hotspot)# no walled-garden 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

Configuring Hotspot Restricted Access Rules

The following commands are used to create and modify Hotspot restricted access rules. Use the restrict-access-order command from the **config-hotspot** context to enter the **config-hotspot-restrict-access** context.

restrict-access-order

To create a new restrict access order or modify an existing restrict access order, use the following command:

restrict-access-order *NUMBER*

Syntax Description

restrict-access-order
: Add a restrict access order

NUMBER
: Add this order ID

order *NUMBER*
: Sets the hotspot rule order.

description *WORD*
: Sets the hotspot rule description.

type allow
: Sets the hotspot rule type to 'allow'.

type deny
: Sets the hotspot rule type to 'deny'.

destination address *IP-ADDR/WORD*
: Sets the destination address of a hotspot rule.

destination port *NUMBER/WORD*
: Sets the destination port of a hotspot rule.

protocol *NUMBER/WORD*
: Sets the protocol of a hotspot rule.

show
: Displays the policy rule.

Defaults

None.

Example

```
ruckus(config-hotspot)# restrict-access-order 1
ruckus(config-hotspot-restrict-access)#
ruckus(config-hotspot-restrict-access)# show
          Description=
          Type= Deny
          Destination Address= Any
          Destination Port= Any
```

```
          Protocol= Any
ruckus(config-hotspot-restrict-access)#
```

no restrict-access-order

To delete a restrict access order, use the following command:

no restrict-access-order *NUMBER*

Syntax Description

no restrict-access-order
Delete a restrict access order

NUMBER
Delete this order ID

Defaults

None.

Example

```
ruckus(config-hotspot)# no restrict-access-order 1
The rule '1' has been removed from the Hotspot.
```

restrict-access-order-ipv6

To create a new IPv6 restrict access order or modify an existing restrict access order, use the following command:

restrict-access-order-ipv6 *NUMBER*

Syntax Description

restrict-access-order-ipv6
Add a restrict access order

NUMBER
Add this order ID

order *NUMBER*
Sets the hotspot rule order.

description *WORD*
Sets the hotspot rule description.

type allow
Sets the hotspot rule type to 'allow'.

type deny
Sets the hotspot rule type to 'deny'.

destination address *IP-ADDR/WORD*
Sets the destination address of a hotspot rule.

destination port *NUMBER/WORD*

Sets the destination port of a hotspot rule.

protocol *NUMBER/WORD*

Sets the protocol of a hotspot rule.

icmpv6 type [**any**|**number** *NUMBER*]

Sets the icmpv6 type of a hotspot rule.

show

Displays the policy rule.

Defaults

None.

Example

```
ruckus(config-hotspot)# restrict-access-order-ipv6 1
ruckus(config-hotspot-restrict-access)#
ruckus(config-hotspot-restrict-access-ipv6)# show
          Description=
          Type= Deny
          Destination Address= Any
          Destination Port= Any
          Protocol= Any
          ICMPv6 Type= Any
ruckus(config-hotspot-restrict-access-ipv6)#
```

no restrict-access-order-ipv6

To delete a restrict access order, use the following command:

no restrict-access-order-ipv6 *order_id*

Syntax Description

no restrict-access-order

Delete a restrict access order

order_id

Delete this order ID

Defaults

None.

Example

```
ruckus(config-hotspot)# no restrict-access-order-ipv6 1
The rule '1' has been removed from the Hotspot.
```

icmpv6-type

To set the ICMPv6 type, use the following command:

icmpv6-type [any | number *NUMBER*]

Defaults

Any.

Example

```
ruckus(config-hotspot-restrict-access-ipv6)# icmpv6-type any
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot-restrict-access-ipv6)#
```

Hotspot Access Restriction Commands

Use the hotspot-restrict-access commands to configure network segments to which hotspot access will be blocked. To run these commands, you must first enter the **config-hotspot-restrict-access** context.

The same commands are available for IPv6 networks from the **config-hotspot-restrict-access-ipv6** context.

end

To save changes, and then exit the config-hotspot-restrict-access context, use the following command:

end

Syntax Description

end

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# end
ruckus(config-hotspot)#
```

exit

To save changes, and then exit the config-hotspot-restrict-access context, use the following command:

exit

Syntax Description

exit

Save changes, and then exit the context

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# exit
ruckus(config-hotspot)#
```

show

To display hotspot access restriction settings, use the following command:

show

Syntax Description

show

Display the hotspot access restriction settings

Defaults

None.

order

To configure the hotspot access rule order, use the following command:

order *NUMBER*

Syntax Description

order

Set the order of a hotspot access rule

NUMBER

Assign the rule this order

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# order 1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

description

To set the description of a hotspot access rule, use the following command:

description *WORD*

Syntax Description

description

Set the description of a hotspot access rule

WORD

Set this as description

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# description h1_order1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

type allow

To set the hotspot access rule type to ‘allow’, use the following command:

type allow

Syntax Description

type

Set the hotspot access rule type

allow

Set the rule type to ‘allow’

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# type allow
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

type deny

To set the hotspot access rule type to ‘deny’, use the following command:

type deny

Syntax Description

type

Set the hotspot access rule type

deny

Set the rule type to ‘deny’

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# type deny
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

destination address

To set the destination address of the rule, use the following command:

destination address *IP-ADDR/WORD*

Syntax Description

destination address
Set the destination address of the rule

IP-ADDR/WORD
Set the destination to this IP address

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# destination address 192.168.20.20/24
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

destination port

To set the destination port of the rule, use the following command:

destination port *NUMBER/WORD*

Syntax Description

destination port
Set the destination port of the rule

NUMBER/WORD
Set the destination to this port number

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# destination port 920
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

protocol

To set the protocol for the rule, use the following command:

protocol *NUMBER/WORD*

Syntax Description

protocol

Set the protocol for the rule

NUMBER/WORD

Set to this protocol

Defaults

None.

Example

```
ruckus(config-hotspot-restrict-access)# protocol 58
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

intrusion-prevention

To enable temporary blocking of Hotspot clients with repeated authentication attempts, use the following command:

intrusion-prevention

Defaults

Disabled.

Example

```
ruckus(config-hotspot)# intrusion-prevention
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

no intrusion-prevention

To disable temporary blocking of Hotspot clients with repeated authentication failure, use the following command:

no intrusion-prevention

Example

```
ruckus(config-hotspot)# no intrusion-prevention
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hotspot)#
```

Configure Hotspot 2.0 Commands

Use the hs20op and hs20sp commands to configure the controller's Hotspot 2.0 operator and service provider settings. To run these commands, you must first enter the **config-hs20op** or **config-hs20sp** context.

To deploy a Hotspot 2.0 service, you must configure the following:

- A Hotspot 2.0 Operator entry
- A Hotspot 2.0 Service Provider entry
- A WLAN with Hotspot 2.0 service enabled

hs20op

Use the following command to configure a Hotspot 2.0 Operator entry:

hs20op *WORD*

Syntax Description

hs20op

Create or configure a Hotspot 2.0 Operator entry

WORD

The name of the Hotspot 2.0 Operator entry.

Example

```
ruckus(config)# hs20op operator1
The Hotspot (2.0) operator entry 'operator1' has been created.
ruckus(config-hs20op)# end
The Hotspot (2.0) operator entry has saved successfully.
Your changes have been saved.
ruckus(config)#
```

no hs20op

Use the following command to delete a Hotspot 2.0 Operator entry:

no hs20op *WORD*

Example

```
ruckus(config)# no hs20op operator1
The Hotspot (2.0) oeprator 'operator1' has been deleted.
ruckus(config)#
```

Configure Hotspot 2.0 Operator Settings

The following commands can be used to configure Hotspot 2.0 Operator entry settings. To execute these commands, you must first create or edit a Hotspot 2.0 Operator entry using the hs20op command and entering the **config-hs20op** context.

Syntax Description

help
Shows available commands.

history
Shows a list of previously run commands.

abort
Exits the config-hs20op context without saving changes.

end
Saves changes, and then exits the config-hs20op context.

exit
Saves changes, and then exits the config-hs20op context.

quit
Exits the config-hs20op context without saving changes.

no internet-option
Disables with connectivity to internet.

no hessid
Sets the HESSID to empty.

no service-provider *WORD NUMBER*
Deletes a service provider from the Hotspot (2.0) operator.

no venue-group-type
Sets both venue group and venue type to unspecified.

no friendly-name *LANGUAGE*
Disable the friendly name for the specified language.

no asra
Disables additional step required for access.

no asra terms
Disables ASRA Type: Acceptance of terms and conditions.

no asra enrollment
Disables ASRA Type: On-line enrollment supported.

no asra http-https
Disables ASRA Type: http/https redirection.

no asra dns
Disables ASRA Type: DNS redirection.

no asra http-https-url
Sets the redirect URL of http/https redirection to empty.

no wan-metrics sym
Disables Symmetric Link.

no **custm-conn-cap** *NUMBER*
Deletes a Connection Capability entry.

no adv-gas dos-detect
Disables the GAS DOS detection.

no hs-caps operating-class-indication
Disables the operating class indication.

name *WORD*
Sets the hotspot(2.0) operator entry name.

description *WORD*
Sets the hotspot(2.0) operator entry description.

internet-option
Enables with connectivity to internet.

hessid *MAC*
Sets the HESSID.

hessid-use-bssid
Sets the HESSID to use BSSID.

service-provider *WORD*
Adds a service provider to the Hotspot (2.0) operator.

venue-group-type unspecified
Sets the venue group to unspecified

venue-group-type assembly
Sets the venue group to assembly

venue-group-type assembly unspecified
Sets the venue type to unspecified

venue-group-type assembly arena
Sets the venue type to arena

venue-group-type assembly stadium
Sets the venue type to stadium

venue-group-type assembly passenger-terminal
Sets the venue type to passenger terminal

venue-group-type assembly amphitheater
Sets the venue type to amphitheater

venue-group-type assembly amusement-park
Sets the venue type to amusement park

venue-group-type assembly place-worship
Sets the venue type to place of worship

venue-group-type assembly convention-center
Sets the venue type to convention center

venue-group-type assembly library
Sets the venue type to library

venue-group-type assembly museum
Sets the venue type to museum

venue-group-type assembly restaurant
Sets the venue type to restaurant

venue-group-type assembly theater
Sets the venue type to theater

venue-group-type assembly bar
Sets the venue type to bar

venue-group-type assembly coffee-shop
Sets the venue type to coffee shop

venue-group-type assembly zoo-or-aquarium
Sets the venue type to zoo or aquarium

venue-group-type assembly emergency-coordination-center
Sets the venue type to emergency coordination center

venue-group-type business
Sets the venue group to business

venue-group-type business unspecified
Sets the venue type to unspecified

venue-group-type business doctor-or-dentist-office
Sets the venue type to doctor or dentist office

venue-group-type business bank
Sets the venue type to bank

venue-group-type business fire-station
Sets the venue type to fire station

venue-group-type business police-station
Sets the venue type to police station

venue-group-type business post-office
Sets the venue type to post office

venue-group-type business professional-office
Sets the venue type to professional office

venue-group-type business research-and-development-facility
Sets the venue type to research and development facility

venue-group-type business attorney-office
Sets the venue type to attorney office

venue-group-type educational
Sets the venue group to educational

venue-group-type educational unspecified
Sets the venue type to unspecified

venue-group-type educational school-primary
Sets the venue type to school primary

venue-group-type educational school-secondary
Sets the venue type to school secondary

venue-group-type educational university-or-college
Sets the venue type to university or college

venue-group-type factory-industrial
Sets the venue group to factory industrial

venue-group-type factory-industrial unspecified
Sets the venue type to unspecified

venue-group-type factory-industrial factory
Sets the venue type to factory

venue-group-type institutional
Sets the venue group to institutional

venue-group-type institutional unspecified
Sets the venue type to unspecified

venue-group-type institutional hospital
Sets the venue type to hospital

venue-group-type institutional long-term-care-facility
Sets the venue type to long term care facility

venue-group-type institutional alcohol-and-drug-reHabilitation-center
Sets the venue type to alcohol and drug reHabilitation center

venue-group-type institutional group-home
Sets the venue type to group home

venue-group-type institutional prison-or-jail
Sets the venue type to prison or jail

venue-group-type mercantile
Sets the venue group to mercantile

venue-group-type mercantile unspecified
Sets the venue type to unspecified

venue-group-type mercantile retail-store
Sets the venue type to retail store

venue-group-type mercantile grocery-market
Sets the venue type to grocery market

venue-group-type mercantile automotive-service-station
Sets the venue type to automotive service station

venue-group-type mercantile shopping-mall
Sets the venue type to shopping mall

venue-group-type mercantile gas-station
Sets the venue type to gas station

venue-group-type residential
Sets the venue group to residential

venue-group-type residential unspecified
Sets the venue type to unspecified

venue-group-type residential private-residence
Sets the venue type to private residence

venue-group-type residential hotel-or-motel
Sets the venue type to hotel or motel

venue-group-type residential dormitory
Sets the venue type to dormitory

venue-group-type residential boarding-house
Sets the venue type to boarding house

venue-group-type storage
Sets the venue group to storage

venue-group-type storage unspecified
Sets the venue type to unspecified

venue-group-type utility-miscellaneous
Sets the venue group to utility miscellaneous

venue-group-type utility-miscellaneous unspecified
Sets the venue type to unspecified

venue-group-type vehicular
Sets the venue group to vehicular

venue-group-type vehicular unspecified
Sets the venue type to unspecified

venue-group-type vehicular automobile-or-truck
Sets the venue type to automobile or truck

venue-group-type vehicular airplane
Sets the venue type to airplane

venue-group-type vehicular bus
Sets the venue type to bus

venue-group-type vehicular ferry
Sets the venue type to ferry

venue-group-type vehicular ship-or-boat
Sets the venue type to ship or boat

venue-group-type vehicular train
Sets the venue type to train

venue-group-type vehicular motor-bike
Sets the venue type to motor bike

venue-group-type outdoor
Sets the venue group to outdoor

venue-group-type outdoor unspecified
Sets the venue type to unspecified

venue-group-type outdoor muni-mesh-network
Sets the venue type to muni mesh network

venue-group-type outdoor city-park
Sets the venue type to city park

venue-group-type outdoor rest-area
Sets the venue type to rest area

venue-group-type outdoor traffic-control
Sets the venue type to traffic control

venue-group-type outdoor bus-stop
Sets the venue type to bus stop

venue-group-type outdoor kiosk
Sets the venue type to kiosk

friendly-name *LANGUAGE WORD*
Sets the friendly name for the specified language.

asra
Enables additional step required for access.

asra terms
Enables ASRA Type: Acceptance of terms and conditions.

asra enrollment
Enables ASRA Type: On-line enrollment supported.

asra http-https
Enables ASRA Type: http/https redirection.

asra **http-https url***WORD*
Sets the redirect URL of http/https redirection.

asra dns
Enables ASRA Type: DNS redirection.

accs-net-type private
Sets the access network type to Private network.

accs-net-type private-with-guest
Sets the access network type to Private network with guest access.

accs-net-type chargeable-public
Sets the access network type to Chargeable public network.

accs-net-type free-public
Sets the access network type to Free public network.

accs-net-type personal-device
Sets the access network type to Personal device network.

accs-net-type test-or-experimental
Sets the access network type to Test or experimental.

accs-net-type wildcard
Sets the access network type to Wildcard.

ip-addr-type ipv4 not-avail
Sets the IPv4 Address Type to not available.

ip-addr-type ipv4 public
Sets the IPv4 Address Type to public address.

ip-addr-type ipv4 port-restricted
Sets the IPv4 Address Type to port-restricted address.

ip-addr-type ipv4 single-nated
Sets the IPv4 Address Type to single NATed private address.

ip-addr-type ipv4 double-nated
Sets the IPv4 Address Type to double NATed private address.

ip-addr-type ipv4 port-single
Sets the IPv4 Address Type to port-restricted address and single NATed private address.

ip-addr-type ipv4 port-double
Sets the IPv4 Address Type to port-restricted address and double NATed private address.

ip-addr-type ipv4 unknown
Sets the IPv4 Address Type to unknown.

ip-addr-type ipv6 not-avail
Sets the IPv6 Address Type to not available.

ip-addr-type ipv6 avail
Sets the IPv6 Address Type to available.

ip-addr-type ipv6 unknown
Sets the IPv6 Address Type to unknown.

wan-metrics sym
Enables Symmetric Link.

wan-metrics link-stat up
Sets Link Status to Link UP.

wan-metrics link-stat down
Sets Link Status to Link Down.

wan-metrics link-stat test
Sets Link Status to Link in Test State.

wan-metrics downlink-load *NUMBER*
Sets WAN downlink load.

wan-metrics downlink-speed *NUMBER*
Sets WAN downlink speed.

wan-metrics uplink-load *NUMBER*
Sets WAN uplink load.

wan-metrics uplink-speed *NUMBER*
Sets WAN uplink speed.

wan-metrics lmd *NUMBER*
Sets Load Measurement Duration.

conn-cap icmp closed
Sets the ICMP Connection Capability Status to closed

conn-cap icmp open
Sets the ICMP Connection Capability Status to open

conn-cap icmp unknown
Sets the ICMP Connection Capability Status to unknown

conn-cap ftp closed
Sets the FTP Connection Capability Status to closed

conn-cap ftp open
Sets the FTP Connection Capability Status to open

conn-cap ftp unknown
Sets the FTP Connection Capability Status to unknown

conn-cap ssh closed
Sets the SSH Connection Capability Status to clsoed

conn-cap ssh open
Sets the SSH Connection Capability Status to open

conn-cap ssh unknown
Sets the SSH Connection Capability Status to unknown

conn-cap http closed
Sets the HTTP Connection Capability Status to clsoed

conn-cap http open
Sets the HTTP Connection Capability Status to open

conn-cap http unknown
Sets the HTTP Connection Capability Status to unknown

conn-cap tls-vpn closed
Sets the TLS VPN Connection Capability Status to clsoed

conn-cap tls-vpn open
Sets the TLS VPN Connection Capability Status to open

conn-cap tls-vpn unknown
Sets the TLS VPN Connection Capability Status to unknown

conn-cap pptp-vpn closed
Sets the PPTP VPN Connection Capability Status to clsoed

conn-cap pptp-vpn open
Sets the PPTP VPN Connection Capability Status to open

conn-cap pptp-vpn unknown
Sets the PPTP VPN Connection Capability Status to unknown

conn-cap voip-tcp closed
Sets the VoIP(TCP) Connection Capability Status to closed

conn-cap voip-tcp open
Sets the VoIP(TCP) Connection Capability Status to open

conn-cap voip-tcp unknown
Sets the VoIP(TCP) Connection Capability Status to unknown

conn-cap ikev2 closed
Sets the IKEv2 Connection Capability Status to clsoed

conn-cap ikev2 open
Sets the IKEv2 Connection Capability Status to open

conn-cap ikev2 unknown
Sets the IKEv2 Connection Capability Status to unknown

conn-cap voip-udp closed
Sets the VoIP(UDP) Connection Capability Status to closed

conn-cap voip-udp open
Sets the VoIP(UDP) Connection Capability Status to open

conn-cap voip-udp unknown
Sets the VoIP(UDP) Connection Capability Status to unknown

conn-cap ipsec-vpn closed
Sets the IPSec VPN Connection Capability Status to clsoed

conn-cap ipsec-vpn open
Sets the IPSec VPN Connection Capability Status to open

conn-cap ipsec-vpn unknown
Sets the IPSec VPN Connection Capability Status to unknown

conn-cap esp closed
Sets the ESP Connection Capability Status to clsoed

conn-cap esp open
Sets the ESP Connection Capability Status to open

conn-cap esp unknown
Sets the ESP Connection Capability Status to unknown

custm-conn-cap *NUMBER* **ip-proto** *NUMBER* **port** *NUMBER***status closed**
Sets Status to closed.

custm-conn-cap *NUMBER* **ip-proto** *NUMBER* **port** *NUMBER***status closed description** *WORD*
Sets the description of Connection Capability entry.

custm-conn-cap *NUMBER* **ip-proto** *NUMBER* **port** *NUMBER***status open**
Sets Status to open.

custm-conn-cap *NUMBER* **ip-proto** *NUMBER* **port** *NUMBER***status open description** *WORD*
Sets the description of Connection Capability entry.

custm-conn-cap *NUMBER* **ip-proto** *NUMBER* **port** *NUMBER***status unknown**
Sets Status to unknown.

custm-conn-cap *NUMBER* **ip-proto** *NUMBER* **port** *NUMBER***status unknown description** *WORD*
Sets the description of Connection Capability entry.

adv-gas cb-delay *NUMBER*
Sets the GAS Comeback Delay.

adv-gas rsp-limit *NUMBER*
Sets the GAS query response length limit.

adv-gas rsp-buf-time *NUMBER*
Sets the GAS query response buffering time.

adv-gas dos-detect
Enables the GAS DOS detection.

adv-gas dos-maxreq *NUMBER*
Set the GAS DOS detection maximum request number.

hs-caps operating-class-indication 2.4
Sets the operating class indication to 2.4 GHz.

hs-caps operating-class-indication 5
Sets the operating class indication to 5 GHz.

hs-caps operating-class-indication dual-band
Sets the operating class indication to 2.4/5 GHz.

show
Displays hotspot 2.0 operator settings.

hs20sp

Use the following command to configure a Hotspot 2.0 Service Provider entry:

hs20sp *WORD*

Example

ruckus(config)# hs20sp serviceprovider1

The Hotspot (2.0) service provider entry 'serviceprovider1' has been created.

ruckus(config-hs20sp)# end

The Hotspot (2.0) service provider entry has saved successfully.

Your changes have been saved.

ruckus(config)#

no hs20sp

Use the following command to delete a Hotspot 2.0 Service Provider entry:

no hs20sp *WORD*

Example

```
ruckus(config)# no hs20sp provider1
The Hotspot (2.0) service provider 'provider1' has been deleted.
ruckus(config)#
```

Configure Hotspot 2.0 Service Provider Settings

The following commands can be used to configure Hotspot 2.0 Service Provider entry settings. To execute these commands, you must first create or edit a Hotspot 2.0 Service Provider entry using the **hs20sp** command and entering the **config-hs20sp** context.

Syntax Description

help
Shows available commands.

history
Shows a list of previously run commands.

abort
Exits the config-hs20sp context without saving changes.

end
Saves changes, and then exits the config-hs20sp context.

exit
Saves changes, and then exits the config-hs20sp context.

quit
Exits the config-hs20sp context without saving changes.

no nai-realm *NUMBER*
Deletes a NAI Realm entry.

no domain-name *NUMBER*
Deletes a domain name entry.

no roam-consortium *NUMBER*
Deletes a roaming consortium entry.

no anqp-3gpp-info *NUMBER*
Deletes a 3GPP cellular network information entry.

name *WORD*
Sets the hotspot(2.0) service provider entry name.

description *WORD*
Sets the hotspot(2.0) service provider entry description.

nai-realm *NUMBER*
Creates a new NAI Realm entry or modifies an existing entry.

domain-name *NUMBER*
Creates a new domain name entry or modifies an existing entry.

domain-name*NUMBER* **name** *WORD*
Sets the domain name of a domain name entry.

roam-consortium *NUMBER*
Creates a new roaming consortium entry or modifies an existing entry.

roam-consortium*NUMBER* **org-id** *HEX*
Sets the organization ID of a roaming consortium entry.

roam-consortium*NUMBER* **org-id** *HEX* **name** *WORD*
Sets the name of a roaming consortium entry.

anqp-3gpp-info *NUMBER*
Creates a 3GPP cellular network information entry or modifies an existing entry list.

anqp-3gpp-info *NUMBER* **mcc** *NUMBER*
Sets the MCC of 3GPP cellular network information entry.

anqp-3gpp-info *NUMBER* **mcc** *NUMBER* **mnc** *NUMBER*
Sets the MNC of 3GPP cellular network information entry.

anqp-3gpp-info *NUMBER* **mcc** *NUMBER* **mnc** *NUMBER* **name** *WORD*
Sets the name of 3GPP cellular network information entry.

show
Displays hotspot 2.0 service provider settings.

nai-realm

To create, a new NAI Realm entry or modifies an existing entry, use the following command:

nai-realm *NUMBER*

This command enters the config-hs20sp-nai-realm context. The following commands can be executed from within this context.

Syntax Description

name
Sets the name of the NAI Realm entry.

encoding
Sets the encoding of the NAI Realm entry.

eap-method *NUMBER*
Sets the EAP method #X of the NAI Realm entry. (X:1~4)

no
Contains commands that can be executed from within the context.

show
Displays NAI Realm settings.

Example

```
ruckus(config-hs20sp)# nai-realm 1
ruckus(config-hs20sp-nai-realm)# name realm1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-hs20sp-nai-realm)# show
          Name= realm1
          Encoding= RFC-4282
          EAP Method #1= N/A
          EAP Method #2= N/A
          EAP Method #3= N/A
          EAP Method #4= N/A
ruckus(config-hs20sp-nai-realm)# end
To save the changes, type 'end' or 'exit'.
ruckus(config-hs20sp)# end
The Hotspot (2.0) service provider entry has saved successfully.
```

```
Your changes have been saved.
ruckus(config)#
```

name

Use the following command to set the name of the NAI Realm entry:

name *WORD*

encoding

Use the following command to set the encoding of the NAI Realm entry:

encoding [**rfc-4282** | **utf-8**]

eap-method

Use the following command to set the EAP method of the NAI Realm entry:

eap-method *NUMBER*

eap-method eap-mthd

Use the following command to set the EAP method of the NAI Realm entry:

eap-method *NUMBER* **eap-mthd** [**N/A** | *NAME*]

Syntax Description

N/A
: Sets the EAP method of the NAI Realm entry to N/A.

MD5-Challenge
: Sets the EAP method of the NAI Realm entry to MD5-Challenge.

EAP-TLS
: Sets the EAP method of the NAI Realm entry to EAP-TLS.

EAP-CISCO
: Sets the EAP method of the NAI Realm entry to EAP-Cisco.

EAP-SIM
: Sets the EAP method of the NAI Realm entry to EAP-SIM.

EAP-TTLS
: Sets the EAP method of the NAI Realm entry to EAP-SIM.

PEAP
: Sets the EAP method of the NAI Realm entry to PEAP.

MSCHAP-V2
: Sets the EAP method of the NAI Realm entry to EAP-MSCHAP-V2.

EAP-AKA
: Sets the EAP method of the NAI Realm entry to EAP-AKA.

EAP-AKA-Prime
Sets the EAP method of the NAI Realm entry to EAP-AKA'.

Reserved
Sets the EAP method of the NAI Realm entry to Reserved.

Example

```
ruckus(config-hs20sp-nai-realm)# eap-method 1 eap-mthd EAP-TLS
The command was executed successfully. To save the changes, type 'end' or 'exit'
ruckus(config-hs20sp-nai-realm)#
```

eap-method auth-info

To set the Auth Info of the EAP method, use the following command:

eap-method *NUMBER* **auth-info** *NUMBER*

Syntax Description

auth-id
Sets the auth info ID of the auth info.

auth-id expanded-EAP-method
Sets the Auth Info of the EAP method to expanded-EAP-method.

auth-id expanded-EAP-method vndr-id *NUMBER*
Sets the vendor ID of the auth info.

auth-id expanded-EAP-method vndr-id *NUMBER NUMBER*
Sets the vendor type of the auth info.

auth-id nonEAP-inner-auth
Sets the Auth Info of the EAP method to Non-EAP Inner Authentication Type.

auth-id nonEAP-inner-auth auth-type
Sets the auth info type of the auth info.

nonEAP-inner-auth auth-type Reserved
Sets the Non-EAP Inner Authentication Type to Reserved.

auth-id nonEAP-inner-auth auth-type PAP
Sets the Non-EAP Inner Authentication Type to PAP.

auth-id nonEAP-inner-auth auth-type CHAP
Sets the Non-EAP Inner Authentication Type to CHAP.

auth-id nonEAP-inner-auth auth-type MSCHAP
Sets the Non-EAP Inner Authentication Type to MSCHAP.

auth-id nonEAP-inner-auth auth-type MSCHAPV2
Sets the Non-EAP Inner Authentication Type to MSCHAPV2.

auth-id inner-auth-EAP-mthd
Sets the Auth Info of the EAP method to Inner Authentication EAP Method Type.

auth-id inner-auth-EAP-mthd auth-type
Sets the auth info type of the auth info.

auth-id inner-auth-EAP-mthd auth-type EAP-TLS
Sets the Inner Authentication EAP Method Type to EAP-TLS.

auth-id inner-auth-EAP-mthd auth-type EAP-SIM
Sets the Inner Authentication EAP Method Type to EAP-SIM.

auth-id inner-auth-EAP-mthd auth-type EAP-TTLS
Sets the Inner Authentication EAP Method Type to EAP-TTLS.

auth-id inner-auth-EAP-mthd auth-type EAP-AKA
Sets the Inner Authentication EAP Method Type to EAP-AKA.

auth-id inner-auth-EAP-mthd auth-type EAP-AKA-Prime
Sets the Inner Authentication EAP Method Type to EAP-AKA'.

auth-id exp-inner-EAP-mthd
Sets the Auth Info of the EAP method to expanded-inner-EAP-method.

auth-id inner-EAP-mthd vndr-id *NUMBER*
Sets the vendor ID of the auth info.

auth-id exep-inner-EAP-mthd vndr-id *NUMBER* **vndr-type** *NUMBER*
Sets the vendor type of the auth info.

auth-id credential-type
Sets the Auth Info of the EAP method to Credential Type.

auth-id credential-type auth-type
Sets the auth info type of the auth info.

auth-id credential-type auth-type SIM
Sets the Credential Type to SIM.

auth-id credential-type auth-type USIM
Sets the Credential Type to USIM.

auth-id credential-type auth-type NFC-secure-elem
Sets the Credential Type to NFC Secure Element.

auth-id credential-type auth-type hardware-token
Sets the Credential Type to Hardware Token.

auth-id credential-type auth-type softoken
Sets the Credential Type to Softoken.

auth-id credential-type auth-type certificate
Sets the Credential Type to Certificate.

auth-id credential-type auth-type
auth-id credential-type auth-type username-password
Sets the Credential Type to username/password.

auth-id credential-type auth-type none
Sets the Credential Type to none.

auth-id credential-type auth-type reserved
Sets the Credential Type to Reserved.

auth-id tunnel-EAP-mthd-crdn-type
Sets the Auth Info of the EAP method to Tunneled EAP Method Credential Type.

auth-id tunnel-EAP-mthd-crdn-type auth-type
Sets the auth info type of the auth info.

auth-id tunnel-EAP-mthd-crdn-type auth-type SIM
Sets the Tunneled EAP Method Credential Type to SIM.

auth-id tunnel-EAP-mthd-crdn-type auth-type USIM
Sets the Tunneled EAP Method Credential Type to USIM.

auth-id tunnel-EAP-mthd-crdn-type auth-type NFC-secure-elem
Sets the Tunneled EAP Method Credential Type to NFC Secure Element.

auth-id tunnel-EAP-mthd-crdn-type auth-type hardware-token
Sets the Tunneled EAP Method Credential Type to Hardware Token.

auth-id tunnel-EAP-mthd-crdn-type auth-type softoken
Sets the Tunneled EAP Method Credential Type to Softoken.

auth-id tunnel-EAP-mthd-crdn-type auth-type certificate
Sets the Tunneled EAP Method Credential Type to Certificate.

auth-id tunnel-EAP-mthd-crdn-type auth-type username-password
Sets the Tunneled EAP Method Credential Type to username/password.

auth-id tunnel-EAP-mthd-crdn-type auth-type reserved
Sets the Tunneled EAP Method Credential Type to Reserved.

auth-id tunnel-EAP-mthd-crdn-type auth-type anonymous
Sets the Tunneled EAP Method Credential Type to Anonymous.

no eap-method *NUMBER*
Sets the EAP method #X of the NAI Realm entry. (X:1~4)

no eap-method *NUMBER* **auth-info** *NUMBER*
Disable the Auth Info of the EAP method

show
Displays NAI Realm settings.

Configure Mesh Commands

Use the mesh commands to configure the controller's mesh networking settings. To run these commands, you must first enter the **config-mesh** context.

mesh

Use the mesh command to enter the config-mesh context and configure the mesh-related settings.

mesh

Syntax Description

mesh

Configure mesh settings

Defaults

none

Example

```
ruckus(config)# mesh
ruckus(config-mesh)#
```

abort

To exit the config-mesh context without saving changes, use the abort command.

end

To save changes, and then exit the config-mesh context, use the end command.

exit

To save changes, and then exit the config-mesh context, use the exit command.

quit

To exit the config-mesh context without saving changes, use the quit command.

show

To display the current mesh settings, use the following command from within the *config-mesh* context:

show

Syntax Description

show

Display the current mesh settings

Example

```
ruckus(config-mesh)# show
Mesh Settings:
  Mesh Status= Enabled
  Mesh Name(ESSID)= Mesh-951608000220
  Mesh Passphrase= bzj9Y0kEpkxOPzPXyKqLrJHZSAAnbtfaTm7Ebh6qps24PFPcc5MtCiijGGwFZBG
  Mesh Radio Option= 5G
  Mesh Uplink Selection Algorithm = default(static)
  Mesh Hop Detection:
    Status= Disabled
  Mesh Downlinks Detection:
    Status= Disabled
  Tx. Rate of Management Frame=  2Mbps
  Beacon Interval= 200ms
  Zero-Touch-Mesh status= Enabled
Zero Touch Mesh Pre-Approved Serial Number List:
serial number = 921802014959, approved = 0, time = 0, id = 1
serial number = 441e981cf0d0, approved = 0, time = 0, id = 2
serial number = 4f1e681cf3f0, approved = 0, time = 0, id = 3
serial number = c41e781bd7c0, approved = 0, time = 0, id = 4

ruckus(config-mesh)#
```

ssid

To set the SSID of the mesh network, use the following command:

ssid *WORD/SSID*

Syntax Description

ssid

Set the SSID of the mesh network

WORD/SSID

Set to this SSID

Defaults

None.

Example

```
ruckus(config-mesh)# ssid rks_mesh
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

passphrase

To set the passphrase that allows access to the mesh network, use the following command:

passphrase *WORD*

Syntax Description

passphrase
Set the passphrase that allows access to the mesh network

WORD
Set to this passphrase

Defaults

None.

Example

```
ruckus(config-mesh)# passphrase test123456
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

hops-warn-threshold

To enable and configure the mesh hop threshold, use the following command:

hops-warn-threshold *NUMBER*

Syntax Description

hops-warn-threshold
Set the mesh hop threshold (max hops)

NUMBER
Set to this threshold value

Defaults

5

Example

```
ruckus(config-mesh)# hops-warn-threshold 6
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no detect-hops

To disable the mesh hop threshold, use the following command:

no detect-hops

Syntax Description

no detect-hops
Disable the mesh hop threshold

Defaults

None.

Example

```
ruckus(config-mesh)# no detect-hops
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

fan-out-threshold

To enable and configure the mesh downlink threshold, use the following command:

fan-out-threshold *NUMBER*

Syntax Description

fan-out-threshold

Set the mesh downlink threshold (max downlinks)

NUMBER

Set to this threshold value

Defaults

5

Example

```
ruckus(config-mesh)# fan-out-threshold 8
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no detect-fanout

To disable the mesh downlink threshold, use the following command:

no detect-fanout

Syntax Description

no detect-fanout

Disable the mesh downlink threshold

Example

```
ruckus(config-mesh)# no detect-fanout
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

beacon-interval

To set the beacon interval for mesh links, use the following command:

beacon-interval *NUMBER*

Syntax Description

beacon-interval

Set the beacon interval for mesh links

NUMBER

Enter the beacon interval (100~1000 TUs)

Defaults

200

Example

```
ruckus(config-mesh)# beacon-interval 200
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-mesh)#
```

mgmt-tx-rate

To set the transmit rate for management frames, use the following command:

mgmt-tx-rate *RATE*

Syntax Description

mgmt-tx-rate

Set the max transmit rate for management frames

RATE

Set the transmit rate (in Mbps).

Defaults

2

Example

```
ruckus(config-mesh)# mgmt-tx-rate 2
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-mesh)#
```

mesh-uplink-selection static

Sets static on mesh uplinks, the default is static.

mesh-uplink selection static

Syntax Description

mesh-uplink-selection

Set the mesh uplink selection method.

static

Set mesh uplink selection to static.

Defaults

Static

Example

```
ruckus(config-mesh)# mesh-uplink-selection static
Nothing changed
ruckus(config-mesh)#
```

mesh-uplink-selection dynamic

Sets dynamic on mesh uplinks.

mesh-uplink selection dynamic

Syntax Description

mesh-uplink-selection

Set the mesh uplink selection method.

dynamic

Set mesh uplink selection to dynamic.

Defaults

Static

Example

```
ruckus(config-mesh)# mesh-uplink-selection dynamic
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-mesh)#
```

mesh-radio-option

To set the mesh radio, use the following command:

mesh-radio-option <2.4G | 5G>

Options

2.4G: Sets mesh radio type to 2.4 GHz.

5G: Sets mesh radio type to 5 GHz.

Defaults

5G

Example

```
ruckus(config-mesh)# mesh-radio-option 5G
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-mesh)#
```

zero-touch-mesh

To enable zero touch mesh, use the following command:

zero-touch-mesh

Defaults

Disabled

Example

```
ruckus(config-mesh)#  zero-touch-mesh
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-mesh)#
```

no zero-touch-mesh

To disable zero touch mesh, use the following command:

no zero-touch-mesh

Defaults

Disabled

Example

```
ruckus(config-mesh)# no zero-touch-mesh
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-mesh)#
```

zt-mesh-serial

To add one or more zero-touch mesh pre-approved serial numbers, use the following command:

zt-mesh-serial[*<SERIAL_1>* *<SERIAL_2>* <...> *<SERIAL_n>*]

Syntax Description

zt-mesh-serial: Add zero-touch mesh pre-approved serial number.

<SERIAL_1>... : Serial number to be added to Zero Touch Mesh pre-approved list.

NOTE
The `zt-mesh-serial` command only submits these serial numbers to a system memory buffer. It does not save them to the pre-approved AP list. If you enter the `exit` or `end` command, these serial numbers will be saved to the pre-approved serial list and deleted from the system memory buffer. If you enter the `quit` or `abort` command, these serial numbers will been discarded and deleted from the system memory buffer.

Example

```
ruckus(config-mesh)# zt-mesh-serial 111122223333 222233334444 333344445555 444455556666
Add all serial numbers to zt-mesh pre-approved list submit ok!
ruckus(config-mesh)# end
Add 111122223333 to zt-mesh pre-approved list execute success!
Add 222233334444 to zt-mesh pre-approved list execute success!
Add 333344445555 to zt-mesh pre-approved list execute success!
Add 444455556666 to zt-mesh pre-approved list execute success!
Your changes have been saved.
ruckus(config)#
```

no zt-mesh-serial

To delete a zero-touch mesh pre-approved serial number, use the following command:

no zt-mesh-serial [*<SERIAL_1>* *<SERIAL_2>* *<...>* *<SERIAL_n>*]

Syntax Description

no zt-mesh-serial: Delete zero-touch mesh pre-approved serial number.

<SERIAL_1>... : Serial number to be removed from Zero Touch Mesh pre-approved list.

NOTE
The `no zt-mesh-serial` command only submits these serial numbers to a system memory buffer. It does not remove them from the pre-approved AP list. If you enter the `exit` or `end` command, these serial numbers will be removed from the pre-approved serial list and deleted from the system memory buffer. If you enter the `quit` or `abort` command, these serial numbers will been discarded and deleted from the system memory buffer.

Example

```
ruckus(config-mesh)# no zt-mesh-serial 111122223333 222233334444 333344445555 444455556666
Delete all serial numbers from zt-mesh pre-approved list submit ok!
ruckus(config-mesh)# end
Delete 111122223333 from zt-mesh pre-approved list execute success!
Delete 222233334444 from zt-mesh pre-approved list execute success!
Delete 333344445555 from zt-mesh pre-approved list execute success!
Delete 444455556666 from zt-mesh pre-approved list execute success!
Your changes have been saved.
ruckus(config)#
```

Configure Alarm Commands

Use the alarm commands to configure the controller's alarm notification settings. To run these commands, you must first enter the **config-alarm** context.

alarm

To enter the config-alarm context, use the following command.

alarm

Defaults

Disabled

Example

```
ruckus(config)# alarm
ruckus(config-alarm)#
```

no alarm

To disable alarm settings, use the following command:

no alarm

Example

```
ruckus(config)# no alarm
The Alarm settings have been updated.
ruckus(config)#
```

abort

To exit the config-alarm context without saving changes, use the abort command.

abort

end

To save changes, and then exit the config-alarm context, use the following command:

end

Example

```
ruckus(config-alarm)# end
The Alarm settings have been updated.
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-alarm context, use the following command:

exit

Example

```
ruckus(config-alarm)# exit
The Alarm settings have been updated.
Your changes have been saved.
```

quit

To exit the config-alarm context without saving changes, use the quit command.

quit

Example

```
ruckus(config-alarm)# quit
No changes have been saved.
ruckus(config)#
```

e-mail

To set the email address to which alarm notifications will be sent, use the following command:

e-mail *WORD*

Syntax Description

e-mail
: Set the email address to which alarm notifications will be sent

WORD
: Send alarm notifications to this email address

Defaults

None.

Example

```
ruckus(config-alarm)# e-mail joe@163.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

show

To display the current alarm settings, use the following command:

show

Example

```
ruckus(config-alarm)# show
Alarm:
  Status= Enabled
  Email Address= test@hotmail.com

ruckus(config-alarm)#
```

Configure Alarm-Event Settings

Use the alarm-event commands to configure which events will trigger ZoneDirector email alerts. Entering this command enters the **config-alarm-event** context.

alarm-event

To enter the config-alarm-event context and configure email alarm notifications for specific event types, use the following command:

alarm-event

event

To enable email alarm notifications for a specific alarm event, use the following command:

event *WORD*

Syntax Description

event all
Enable email alarms for all event types

rogue-ap-detected
Enable email notification when Rogue AP detected

rogue-device-detected
Enable email notification when Ad hoc network detected

ap-lost-contacted
AP lost contact

ssid-spoofing-ap-detected
SSID spoofing AP detected

mac-spoofing-ap-detected
MAC spoofing AP detected

user-blocked-ap-detected
User blocked AP detected

rogue-dhcp-server-detected
Rogue DHCP server detected

temporary-license-expired
Temporary license has expired

temporary-license-will-expire
Temporary license will expire

lan-rogue-ap-detected
LAN Rogue AP detected

radius-server-unreachable
RADIUS server unreachable

ap-has-hardware-problem
AP hardware problem detected

uplink-ap-lost
Mesh AP uplink connection lost

incomplete-primary/secondary-ip-settings
AP fails to maintain primary/secondary ZD IP address settings

smart-redundancy-state-changed
Smart Redundancy device status change detected

smart-redundancy-active-connected
Smart Redundancy device active device connected

smart-redundancy-standby-connected
Smart Redundancy standby device connected

smart-redundancy-active-disconnected
Smart Redundancy active device disconnected

smart-redundancy-standby-disconnected
Smart Redundancy standby device disconnected

entitlement-download-fail
Failure to download the Support Entitlement file from the Ruckus Entitlement server

license-download-fail
Failure to download the URL License file from the Ruckus License Server.

test-alarm ap-lose-connection
Test AP connection lost alarm event

show
Show alarm settings

Defaults

All enabled

Example

```
ruckus(config)# alarm-event
ruckus(config-alarm-event)# event all
ruckus(config-alarm-event)# show
Alarm Events Notify By Email:
  MSG_rogue_AP_detected=                          enabled
  MSG_ad_hoc_network_detected=                    enabled
  MSG_AP_lost=                                    enabled
  MSG_SSID_spoofing_AP_detected=                  enabled
  MSG_MAC_spoofing_AP_detected=                   enabled
  MSG_admin_rogue_dhcp_server=                    enabled
  MSG_admin_templic_expired=                      enabled
  MSG_admin_templic_oneday=                       enabled
  MSG_same_network_spoofing_AP_detected=          enabled
  MSG_RADIUS_service_outage=                      enabled
  MSG_AP_hardware_problem=                        enabled
  MSG_AP_no_mesh_uplink=                          enabled
  MSG_AP_keep_no_AC_cfg=                          enabled
  MSG_cltr_change_to_active=                      enabled
  MSG_cltr_active_connected=                      enabled
```

```
  MSG_cltr_standby_connected=                   enabled
  MSG_cltr_active_disconnected=                 enabled
  MSG_cltr_standby_disconnected=                enabled
  MSG_user_blocked_AP_detected=                 enabled
  MSG_Entitlement_file_download_fail=           enabled
ruckus(config-alarm-event)#
```

no event

To disable email alarm notifications for specific event types, use the following command:

no event *event_name*

Syntax Description

no event
Disable email alarms for this event type

all
Disable email alarms for all event types

rogue-ap-detected
Rogue AP detected

rogue-device-detectedq
Ad hoc network detected

ap-lost-contacted
AP lost contact

ssid-spoofing-ap-detected
SSID spoofing AP detected

mac-spoofing-ap-detected
MAC spoofing AP detected

user-blocked-ap-detected
User blocked AP detected

rogue-dhcp-server-detected
Rogue DHCP server detected

temporary-license-expired
Temporary license has expired

temporary-license-will-expire
Temporary license will expire

lan-rogue-ap-detected
LAN Rogue AP detected

radius-server-unreachable
RADIUS server unreachable

ap-has-hardware-problem
AP hardware problem detected

uplink-ap-lost
Mesh AP uplink connection lost

incomplete-primary/secondary-ip-settings
AP fails to maintain primary/secondary ZD IP address settings

smart-redundancy-state-changed
Smart Redundancy device status change detected

smart-redundancy-active-connected
Smart Redundancy device active device connected

smart-redundancy-standby-connected
Smart Redundancy standby device connected

smart-redundancy-active-disconnected
Smart Redundancy active device disconnected

smart-redundancy-standby-disconnected
Smart Redundancy standby device disconnected

entitlement-download-fail
Failure to download the Support Entitlement file from the Ruckus Entitlement server

Example

```
ruckus(config-alarm-event)# no event aaa-server-unreachable
ruckus(config-alarm-event)# show
Alarm Events Notify By Email:
  MSG_rogue_AP_detected=                        enabled
  MSG_ad_hoc_network_detected=                  enabled
  MSG_AP_lost=                                  enabled
  MSG_SSID_spoofing_AP_detected=                enabled
  MSG_MAC_spoofing_AP_detected=                 enabled
  MSG_admin_rogue_dhcp_server=                  enabled
  MSG_admin_templic_expired=                    enabled
  MSG_admin_templic_oneday=                     enabled
  MSG_same_network_spoofing_AP_detected=        enabled
  MSG_RADIUS_service_outage=                    disabled
  MSG_AP_hardware_problem=                      enabled
  MSG_AP_no_mesh_uplink=                        enabled
  MSG_AP_keep_no_AC_cfg=                        enabled
  MSG_cltr_change_to_active=                    enabled
  MSG_cltr_active_connected=                    enabled
  MSG_cltr_standby_connected=                   enabled
  MSG_cltr_active_disconnected=                 enabled
  MSG_cltr_standby_disconnected=                enabled
  MSG_user_blocked_AP_detected=                 enabled
  MSG_Entitlement_file_download_fail=           enabled

ruckus(config-alarm-event)#
```

Configure Services Commands

Use the services commands to configure miscellaneous service settings, such as automatic power and channel selection settings, ChannelFly, background scanning, rogue AP and rogue DHCP server detection, etc. To run these commands, you must first enter the **config-services** context.

abort

To exit the config-services context without saving changes, use the abort command.

abort

Syntax Description

abort

Exit the service settings without saving changes

Example

```
ruckus(config-services)# abort
No changes have been saved.
ruckus(config)#
```

end

To save changes, and then exit the config-services context, use the following command:

end

Syntax Description

end

Save changes, and then exit the context

Example

```
ruckus(config-services)# end
Your changes have been saved.
ruckus(config)#
```

exit

To save changes, and then exit the config-services context, use the following command:

exit

Syntax Description

exit

Save changes, and then exit the context

Example

```
ruckus(config-services)# exit
Your changes have been saved.
ruckus(config)#
```

quit

To exit the config-services context without saving changes, use the quit command.

quit

Syntax Description

quit

Exit the service settings without saving changes

Example

```
ruckus(config-services)# quit
No changes have been saved.
ruckus(config)#
```

auto-channel-background-scanning

To configure auto channel background scanning settings, and enter the *ruckus(config-auto-channel-background-scanning)* context, use the following command:

auto-channel-background-scanning

Example

```
ruckus(config-services)# auto-channel-background-scanning
ruckus(config-auto-channel-background-scanning)#
```

radio-2.4

To enable auto channel background scanning on the 2.4 GHz radio, use the following command:

radio-2.4

Defaults

Enabled.

Example

```
ruckus(config-auto-channel-background-scanning)# radio-2.4
The command was executed successfully.
ruckus(config-auto-channel-background-scanning)#
```

no radio-2.4

To disable auto channel background scanning on the 2.4 GHz radio, use the following command:

no radio-2.4

Defaults

Enabled.

Example

```
ruckus(config-auto-channel-background-scanning)# no radio-2.4
The command was executed successfully.
ruckus(config-auto-channel-background-scanning)#
```

radio-5

To enable auto channel background scanning on the 5 GHz radio, use the following command:

radio-5

Defaults

Enabled.

Example

```
ruckus(config-auto-channel-background-scanning)# radio-5
The command was executed successfully.
ruckus(config-auto-channel-background-scanning)#
```

no radio-5

To disable auto channel background scanning on the 5 GHz radio, use the following command:

no radio-5

Defaults

Enabled.

Example

```
ruckus(config-auto-channel-background-scanning)# no radio-5
The command was executed successfully.
ruckus(config-auto-channel-background-scanning)#
```

off-period

To set the off period hours for auto channel background scanning, use the following command:

off-period <NUMBER>*<NUMBER>*

Defaults

Disabled.

Example

```
ruckus(config-auto-channel-background-scanning)# off-period 23
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-auto-channel-background-scanning)#
```

no off-period

To disable the off period for auto channel background scanning, use the following command:

no off-period

Defaults

Disabled.

Example

```
ruckus(config-auto-channel-background-scanning)# no off-period
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-auto-channel-background-scanning)#
```

clients

To set the max number of associated clients per AP above which auto channel selection will not function, use the following command:

clients*<NUMBER>*

Defaults

Disabled.

Example

```
ruckus(config-auto-channel-background-scanning)# clients 100
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-auto-channel-background-scanning)#
```

interval

To set the auto channel selection interval (in minutes), use the following command:

interval *<NUMBER>*

Defaults

10 minutes.

Example

```
ruckus(config-auto-channel-background-scanning)# interval 10
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-auto-channel-background-scanning)#
```

threshold

To set threshold auto channel background scanning threshold (low|medium|high), use the following command:

threshold [*low* | *medium* | *high*]

Defaults

Medium.

Example

```
ruckus(config-auto-channel-background-scanning)# threshold low
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-auto-channel-background-scanning)#
```

simulate

To simulate auto channel selection with the current settings, use the following command:

simulate

Example

```
ruckus(config-auto-channel-background-scanning)# simulate
###############2.4G channel plan#############
AP MAC             NB   Client  NB_Client  Rogue  Channel  Changed  New_Channel  New_NB  New_NB_Client
New_Rogue

###############5G channel plan###############
AP MAC             NB   Client  NB_Client  Rogue  Channel  Changed  New_Channel  New_NB  New_NB_Client
New_Rogue
d4:c1:9e:35:c9:40  0    1       0          0      40       No       NA           0       0              0

ruckus(config-auto-channel-background-scanning)#
```

deploy

To deploy auto channel background scanning with the current settings, use the following command:

deploy

Example

```
ruckus(config-auto-channel-background-scanning)# deploy
ruckus(config-auto-channel-background-scanning)#
```

show

To display auto channel background scanning settings, use the following command:

show

Example

```
ruckus(config-auto-channel-background-scanning)# show
      2.4GHZ radio status= Enabled
      5GHZ radio status= Enabled
      Off period hours = Disabled
      Interval = 1000 minutes
ruckus(config-auto-channel-background-scanning)#
```

auto-adjust-ap-channel radio-2.4

To enable automatically adjusting the AP 2.4 GHz radio channel when interference is detected, use the following command:

auto-adjust-ap-channel radio-2.4

Syntax Description

auto-adjust-ap-channel
Enable the auto adjustment of the AP radio channel.

radio-2.4
Enable the auto adjustment of the AP radio channel on the 2.4 GHz radio.

Defaults

Enabled.

Example

```
ruckus(config-services)# auto-adjust-ap-channel radio-2.4
The command was executed successfully.
ruckus(config-services)#
```

no auto-adjust-ap-power radio-2.4

To disable automatically adjusting AP 2.4 GHz radio channel when interference is detected, use the following command:

no auto-adjust-ap-power radio-2.4

Syntax Description

no auto-adjust-ap-power
Disable the auto adjustment of the AP radio power.

radio-2.4
Disable the auto adjustment of the AP radio power on the 2.4 GHz radio.

Defaults

Disabled.

Example

```
ruckus(config-services)# no auto-adjust-ap-power radio-2.4
The command was executed successfully.
```

auto-adjust-ap-power radio-5

To enable automatically adjusting AP 5 GHz radio power when interference is detected, use the following command:

auto-adjust-ap-power radio-5

Syntax Description

auto-adjust-ap-power

Enable the auto adjustment of the AP radio power.

radio-2.4

Enable the auto adjustment of the AP radio power on the 5 GHz radio.

Defaults

Disabled.

Example

```
ruckus(config-services)# auto-adjust-ap-power radio-5
The command was executed successfully.
```

no auto-adjust-ap-power radio-5

To disable automatically adjusting AP 5 GHz radio channel when interference is detected, use the following command:

no auto-adjust-ap-power radio-5

Syntax Description

no auto-adjust-ap-power

Disable the auto adjustment of the AP radio power.

radio-5

Disable the auto adjustment of the AP radio power on the 5 GHz radio.

Defaults

Enabled.

Example

```
ruckus(config-services)# no auto-adjust-ap-power radio-5
The command was executed successfully.
```

auto-adjust-ap-channel radio-2.4

To enable automatically adjusting the AP 2.4 GHz radio channel when interference is detected, use the following command:

auto-adjust-ap-channel radio-2.4

Syntax Description

auto-adjust-ap-channel
Enable the auto adjustment of the AP radio channel.

radio-2.4
Enable the auto adjustment of the AP radio channel on the 2.4 GHz radio.

Defaults

Enabled.

Example

```
ruckus(config-services)# auto-adjust-ap-channel radio-2.4
The command was executed successfully.
ruckus(config-services)#
```

no auto-adjust-ap-channel radio-2.4

To disable automatically adjusting the AP 2.4 GHz radio channel when interference is detected, use the following command:

no auto-adjust-ap-channel radio-2.4

Syntax Description

no auto-adjust-ap-channel
Disable the auto adjustment of the AP radio channel.

radio-2.4
Disable the auto adjustment of the AP radio channel on the 2.4 GHz radio.

Defaults

Enabled.

Example

```
ruckus(config-services)# no auto-adjust-ap-channel radio-2.4
The command was executed successfully.
ruckus(config-services)#
```

auto-adjust-ap-channel radio-5

To enable automatically adjusting the AP 5 GHz radio channel when interference is detected, use the following command:

auto-adjust-ap-channel radio-5

Syntax Description

auto-adjust-ap-channel

Enable the auto adjustment of the AP radio channel.

radio-5

Enable the auto adjustment of the AP radio channel on the 5 GHz radio.

Defaults

Enabled.

Example

```
ruckus(config-services)# auto-adjust-ap-channel radio-5
The command was executed successfully.
ruckus(config-services)#
```

no auto-adjust-ap-channel radio-5

To disable automatically adjusting the AP 5 GHz radio channel when interference is detected, use the following command:

no auto-adjust-ap-channel radio-5

Syntax Description

no auto-adjust-ap-channel

Disable the auto adjustment of the AP radio channel.

radio-5

Disable the auto adjustment of the AP radio channel on the 5 GHz radio.

Defaults

Enabled.

Example

```
ruckus(config-services)# no auto-adjust-ap-channel radio-5
The command was executed successfully.
ruckus(config-services)#
```

raps

To enable the Radar Avoidance Pre-Scanning (RAPS) feature on supported access points (SC-8800-S, 7782, 7781, etc.), use the following command:

raps

no raps

To disable the Radar Avoidance Pre-Scanning (RAPS) feature on supported access points (SC-8800-S, 7782, 7781, etc.), use the following command:

no raps

channelfly

To enable ChannelFly channel management, use the following command:

channelfly [**radio-2.4-mtbc** | **radio-5-mtbc**] *NUMBER*

Syntax Description

channelfly
Enable ChannelFly automatic adjustment of theAP radio channel

radio-2.4
Enable ChannelFly on the 2.4 GHz radio

radio-5
Enable ChannelFly on the 5 GHz radio

mtbc
Set the mean time between channel changes

NUMBER
Number in minutes (1~1440) to set as mean time between channel change

Defaults

Enabled for both 2.4 and 5 GHz radios

MTBC: 100

Example

Enable ChannelFly channel management for 2.4G radios

```
ruckus(config-services)# channelfly radio-2.4 100
The command was executed successfully.
ruckus(config-services)#
```

Enable ChannelFly channel management for 5 G radios

```
ruckus(config-services)# channelfly radio-2.4-mtbc 100
The command was executed successfully.
ruckus(config-services)#
```

no channelfly

To disable ChannelFly channel management, use the following command:

no channelfly [**radio-2.4** | **radio-5**]

Syntax Description

no channelfly
Disable ChannelFly automatic adjustment of theAP radio channel

radio-2.4
Disable ChannelFly on the 2.4 GHz radio

radio-5
Disable ChannelFly on the 5 GHz radio

Defaults

None.

Example

```
ruckus(config-services)# no channelfly radio-2.4
The command was executed successfully.
ruckus(config-services)# no channelfly radio-5
The command was executed successfully.
ruckus(config-services)#
```

background-scan

To enable background scanning and configure the scan interval, use the following command:

background-scan [**radio-2.4-interval** | **radio-5-interval**] *<NUMBER>*

Syntax Description

background-scan
Enable background scanning and configure the scan interval

radio-2.4-interval <NUMBER>
Configure background scanning interval for the 2.4 GHz radio

radio-5-interval <NUMBER>
Configure background scanning interval for the 5 GHz radio

low-threshold <NUMBER>
Set the min threshold of switch channel in 2.4 GHz radio (Range: 0 ~ 2000)

Defaults

20 seconds

Example

```
ruckus(config-services)# background-scan radio-2.4-interval 6
The command was executed successfully.
```

background-scan low-threshold

To set the min threshold of switch channel in 2.4GHz radio (Range: 0 ~ 2000), use the following command:

background-scan low-threshold <NUMBER>

Example

```
ruckus(config-services)# background-scan low-threshold 100
The command was executed successfully.
ruckus(config-services)#
```

no background-scan

To disable background scanning on the 2.4GHz radio, use the following command:

no background-scan [**radio-2.4-interval** | **radio-5**]

Syntax Description

no background-scan
: Disable background scanning

radio-2.4
: Disable background scanning on the 2.4GHz radio

radio-5
: Disable background scanning on the 5GHz radio

Defaults

None

Example

```
ruckus(config-services)# no background-scan radio-2.4
The command was executed successfully.
ruckus(config-services)# no background-scan radio-5
The command was executed successfully.
```

aeroscout-detection

To enable detection of AeroScout RFID Tags by APs that are managed by ZoneDirertor, use the following command:

aeroscout-detection

Syntax Description

aeroscout-detection
Enable detection of AeroScout RFID Tags by APs

Defaults

Disabled

Example

```
ruckus(config-services)# aeroscout-detection
The command was executed successfully.
```

no aeroscout-detection

To disable detection of AeroScout RFID Tags by APs that are managed by ZoneDirertor, use the following command:

no aeroscout-detection

Syntax Description

no aeroscout-detection
Disable detection of AeroScout RFID Tags by APs

Defaults

Disabled

Example

```
ruckus(config-services)# no aeroscout-detection
The command was executed successfully.
```

ekahau

To enable and set Ekahau Blink support with ERC IP and port, use the following command:

ekahau *ERC IP ERC Port*

Defaults

Disabled

Example

```
ruckus(config-services)# ekahau 10.10.10.1 500
The command was executed successfully.
ruckus(config-services)# show
Services:
  Automatically adjust ap radio power= Disabled
  Automatically adjust ap channel= Enabled
  Channelfly works on 2.4GHz radio:
    Status= Disabled
  Channelfly works on 5GHz radio:
    Status= Disabled
  Run a background scan on 2.4GHz radio:
    Status= Enabled
    Time= 2000 seconds
  Run a background scan on 5GHz radio:
    Status= Enabled
    Time= 2000 seconds
  AeroScout RFID tag detection= Disabled
  Tunnel encryption for tunneled traffic= Disabled
  Block multicast traffic from network to tunnel= Block non well-known
  Block broadcast traffic from network to tunnel except ARP and DHCP= Disabled
  Tunnel Proxy ARP of tunnel WLAN:
    status= Disabled
    ageing time= 0
  Packet Inspection Filter(PIF) uplink process= Disabled
  Packet Inspection Filter(PIF) rate limit:
    status= Disabled
  RAPS= Enabled
  EKHAU settings:
    status= Enabled
    ERC IP= 10.10.10.1
    ERC port= 500
ruckus(config-services)#
```

no ekahau

To disable Ekahau Blink support, use the following command:

no ekahau

Defaults

Disabled

Example

```
ruckus(config-services)# no ekahau
The command was executed successfully.
ruckus(config-services)#
```

tun-encrypt

To enable tunnel encryption for tunneled traffic, use the following command:

tun-encrypt

Defaults

Disabled

Example

```
ruckus(config-services)# tun-encrypt
The command was executed successfully.
```

no tun-encrypt

To disable tunnel encryption for tunneled traffic, use the following command:

no tun-encrypt

Defaults

Disabled

Example

```
ruckus(config-services)# no tun-encrypt
The command was executed successfully.
```

tun-block-mcast all

To enable multicast blocking for tunneled traffic, use the following command:

tun-block-mcast all

Defaults

Disabled

Example

```
ruckus(config-services)# tun-block-mcast all
The command was executed successfully.
ruckus(config-services)#
```

tun-block-mcast non-well-known

To enable multicast blocking for non-well-known tunneled traffic, use the following command:

tun-block-mcast non-well-known

Defaults

Disabled

Example

```
ruckus(config-services)# tun-block-mcast non-well-known
The command was executed successfully.
ruckus(config-services)#
```

no tun-block-mcast

To disable blocking multicast traffic from network to tunnel, use the following command:

no tun-block-mcast

tun-block-bcast

To enable broadcast blocking for tunneled traffic, use the following command:

tun-block-bcast

Defaults

Disabled

Example

```
ruckus(config-services)# tun-block-bcast
The command was executed successfully.
ruckus(config-services)#
```

no tun-block-bcast

To disables blocking broadcast traffic from network to tunnel except ARP and DHCP, use the following command:

no tun-block-bcast

tun-proxy-arp

To enable proxy ARP service for tunneled traffic, use the following command:

tun-proxy-arp *NUMBER*

Defaults

Disabled

Example

```
ruckus(config-services)# tun-proxy-arp 1000
The command was executed successfully.
ruckus(config-services)#
```

no tun-proxy-arp

To disable Proxy ARP for the tunneled WLAN, use the following command:

no tun-proxy-arp

tun-ip-ageing

To set ageing time for IP/IPv6 table, use the following command:

tun-ip-ageing *NUMBER*

pif

To enable Packet Inspection Filter and set rate limiting threshold, use the following command:

pif [**uplink-proc** | **rate-limit** *NUMBER*]

Syntax Description

pif
: Enable Packet Inspection Filter

uplink-proc
: Enable uplink process of Packet Inspection Filter

rate-limit
: Enable and set Broadcast Neighbor Discovery Packets (ARP and ICMPv6 Neighbor Solicit) rate limit threshold.

NUMBER
: Rate limiting threshold for PIF feature.

Example

```
ruckus(config-services)# pif uplink-proc
The command was executed successfully.
ruckus(config-services)# pif rate-limit 1000
The command was executed successfully.
ruckus(config-services)# show
Services:
  Automatically adjust ap radio power= Disabled
  Automatically adjust ap channel= Enabled
  Channelfly works on 2.4GHz radio:
    Status= Disabled
  Channelfly works on 5GHz radio:
    Status= Disabled
  Run a background scan on 2.4GHz radio:
    Status= Enabled
    Time= 20 seconds
  Run a background scan on 5GHz radio:
    Status= Enabled
    Time= 20 seconds
  AeroScout RFID tag detection= Disabled
  Tunnel encryption for tunneled traffic= Enabled
  Block multicast traffic from network to tunnel= Disabled
  Block broadcast traffic from network to tunnel except ARP and DHCP= Disabled
  Tunnel Proxy ARP of tunnel WLAN:
    status= Disabled
  Packet Inspection Filter(PIF) uplink process= Enabled
  Packet Inspection Filter(PIF) rate limit:
    status= Enabled
    rate limit= 1000
ruckus(config-services)#
```

no pif

To disable uplink process of packet inspection filter or disables Broadcast Neighbor Discovery Packets (ARP and ICMPv6 Neighbor Solicit), use the following command:

no pif [**uplink-proc** | **rate-limit**]

Example

```
ruckus(config-services)# no pif uplink-proc
The command was executed successfully.
ruckus(config-services)# no pif rate-limit
The command was executed successfully.
ruckus(config-services)#
```

show

To display the current service settings, use the following command:

show

Syntax Description

show

Display the current service settings

Defaults

None.

Example

```
ruckus(config-services)# show
Services:
  Automatically adjust ap radio power= Disabled
  Automatically adjust ap channel= Enabled
  Channelfly works on 2.4GHz radio:
    Status= Disabled
  Channelfly works on 5GHz radio:
    Status= Disabled
  Run a background scan on 2.4GHz radio:
    Status= Enabled
    Time= 2000 seconds
  Run a background scan on 5GHz radio:
    Status= Enabled
    Time= 2000 seconds
  AeroScout RFID tag detection= Disabled
  Tunnel encryption for tunneled traffic= Disabled
  Block multicast traffic from network to tunnel= Block non well-known
  Block broadcast traffic from network to tunnel except ARP and DHCP= Disabled
  Tunnel Proxy ARP of tunnel WLAN:
    status= Disabled
    ageing time= 0
  Packet Inspection Filter(PIF) uplink process= Disabled
  Packet Inspection Filter(PIF) rate limit:
    status= Disabled
ruckus(config-services)#
```

Configure WIPS Commands

Use the wips commands to configure Wireless Intrusion Prevention settings. To run these commands, you must first enter the **config-wips** context.

wips

Use the following command to enter the config-wips context and configure WIPS settings:

wips

Syntax Description

help
Shows available commands

history
Shows a list of previously run commands

end
Saves changes, and the exits the config-wips context

exit
Saves changes, and the exits the config-wips context

no *WORD*
Disable WIPS services

protect-excessive-wireless-request
Enables protecting the wireless network against excessive wireless requests

temp-block-auth-failed-client time *NUMBER*
Temporarily block wireless clients with repeated authentication failures for the specified time (in seconds)

rogue-report [**all**] | [**malicious** *ssid-spoofing* | **same-network** | **user-blocked** | **mac-spoofing**]
Enables report rogue devices in ZD event log.

all
Report all rogue devices.

malicious [*ssid-spoofing* | **same-network** | **user-blocked** | **mac-spoofing**]
Report particular malicious type.

malicious-report
Enables protecting the network from malicious rogue access points

rogue-dhcp-detection
Enables rogue DHCP server detection

show
Displays the WIPS settings

Example

```
ruckus(config)# wips
ruckus(config-wips)# show
  Protect my wireless network against excessive wireless requests= Disabled
  Temporarily block wireless clients with repeated authentication failures:
```

```
    Status= Enabled
    Time= 30 seconds
  Report rogue devices in ZD event log= Enabled
  Protect the network from malicious rogue access points= Disabled
  Rogue DHCP server detection= Enabled
ruckus(config-wips)# temp-block-auth-failed-client time 30
The command was executed successfully.
ruckus(config-wips)# rogue-report all
The command was executed successfully.
ruckus(config-wips)# rogue-report malicious same-network
The command was executed successfully.
ruckus(config-wips)# rogue-dhcp-detection
The command was executed successfully.
ruckus(config-wips)# no rogue-dhcp-detection
The command was executed successfully.
ruckus(config-wips)# no rogue-report
The command was executed successfully.
ruckus(config-wips)# show
  Protect my wireless network against excessive wireless requests= Disabled
  Temporarily block wireless clients with repeated authentication failures:
    Status= Enabled
    Time= 30 seconds
  Report rogue devices in ZD event log= Disabled
  Protect the network from malicious rogue access points= Disabled
  Rogue DHCP server detection= Disabled
ruckus(config-wips)#
```

Configure Email Server Commands

Use the email-server commands to configure email server settings. To run these commands, you must first enter the **config-email-server** context.

email-server

Use the following command to enter the **config-email-server** context and configure email server settings:

email-server

Syntax Description

help
Shows available commands.

history
Shows a list of previously run commands.

abort
Exits the config-email-server context without saving changes.

end
Saves changes, and the exits the config-email-server context.

exit
Saves changes, and the exits the config-email-server context.

quit
Exits the config-email-server context without saving changes.

enable
Enables the E-Mail server.

from *WORD*
Sets the E-Mail from for email server.

smtp-server-name *WORD*
Sets the smtp server name for email server.

smtp-server-port *NUMBER*
Sets the smtp server port for email server.

smtp-auth-name *WORD*
Sets the smtp authentication user name for email server.

smtp-auth-password *WORD*
Sets the smtp authentication password for email server.

smtp-wait-time
Sets the smtp server wait time (in seconds).

tls-smtp-encryption tls
Enables TLS of smtp encryption for email server.

tls-smtp-encryption starttls
Enables starttls in the TLS of smtp encryption for email server.

no enable

Disables the email server setting.

no tls-smtp-encryption tls

Disables TLS of smtp encryption for email server.

no tls-smtp-encryption starttls

Disables starttls in the TLS of smtp encryption for email server.

show

Shows email server settings.

Example

```
ruckus(config)# email-server
ruckus(config-email-server)# enable
ruckus(config-email-server)# from example@example.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# smtp-server-name smtp.example.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# smtp-server-port 587
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# smtp-auth-name johndoe
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# smtp-auth-password password
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# tls-smtp-encryption tls
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# tls-smtp-encryption starttls
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)# show
Email Server:
  Status= Enabled
  E-mail From = example@example.com
  SMTP Server Name= smtp.example.com
  SMTP Server Port= 587
  SMTP Authentication Username= johndoe
  SMTP Authentication Password= ********
  SMTP Encryption Options:
    TLS= Enabled
    STARTTLS= Enabled

ruckus(config-email-server)# end
The Email server settings have been updated.
Your changes have been saved.
ruckus(config)#
```

from

To set the sender from address for email alarms, use the following command:

from *WORD*

Syntax Description

from

Set the email address from which alarm notifications will be sent

WORD

Send alarm notifications from this email address

Defaults

None.

Example

```
ruckus(config-email-server)# from test1@gmail.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-email-server)#
```

enable

To enable the email server, use the following command:

enable

Example

```
ruckus(config-email-server)# enable
ruckus(config-email-server)#
```

no enable

To disale the email server, use the following command:

no enable

Example

```
ruckus(config-email-server)# no enable
ruckus(config-email-server)# show
Email Server:
  Status= Disabled

ruckus(config-email-server)#
```

smtp-server-name

To set the SMTP server that ZoneDirector uses to send alarm notifications, use the following command:

smtp-server-name *WORD*

Syntax Description

smtp-server-name
: Set the SMTP server that ZoneDirector uses to send alarm notifications

WORD
: Set to this SMTP server name

Defaults

None.

Example

```
ruckus(config-email-server)# smtp-server-name smtp.163.com
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

smtp-server-port

To set the SMTP server port that ZoneDirector uses to send alarm notifications, use the following command:

smtp-server-port *NUMBER*

Syntax Description

smtp-server-port

Set the SMTP server port that ZoneDirector uses to send alarm notifications

NUMBER

Set to this SMTP server port

Defaults

587

Example

```
ruckus(config-email-server)# smtp-server-port 25
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

smtp-auth-name

To set the user name that ZoneDirector uses to authenticate with the SMTP server,use the following command:

smtp_auth_name *WORD*

Syntax Description

smtp_auth_name

Set the user name that ZoneDirector uses to authenticate with the SMTP server

WORD

Set to this user name

Defaults

None.

Example

```
ruckus(config-email-server)# smtp-auth-name joe
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

smtp-auth-password

To set the password that ZoneDirector uses to authenticate with the SMTP server,use the following command:

smtp-auth-password *WORD*

Syntax Description

smtp-auth-password
: Set the password that ZoneDirector uses to authenticate with the SMTP server

WORD
: Set to this password

Defaults

None.

Example

```
ruckus(config-email-server)# smtp-auth-password 123456
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

smtp-wait-time

To set the SMTP server wait time (in seconds), use following command:

smtp-wait-time *NUMBER*

Example

```
ruckus(config-email-server)# smtp-wait-time 10
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-alarm)#
```

tls-smtp-encryption

To enable TLS for SMTP encryption of email notifications, use the following command:

tls-smtp-encryption [**tls** | **starttls**]

Syntax Description

tls-smtp-encryption
: Enable SMTP encryption of email notifications

tls
: Enable TLS encryption for email notifications

starttls
: Enable STARTTLS encryption for email notifications

Defaults

None.

Example

```
ruckus(config-email-server)# tls-smtp-encryption tls
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

no tls-smtp-encryption

To disable TLS for SMTP encryption of alarm notifications, use the following command:

no tls-smtp-encryption [**tls** | **starttls**]

Syntax Description

no tls-smtp-encryption
: Disable SMTP encryption of alarm notifications

tls
: Disable TLS encryption

starttls
: Disable STARTTLS encryption

Defaults

None.

Example

```
ruckus(config-email-server)# no tls-smtp-encryption tls
The command was executed successfully. To save the changes, type 'end' or 'exit'.
```

Configure SMS Server Commands

Use the sms-server commands to configure SMS server settings. To run these commands, you must first enter the **config-sms-server** context.

sms-server

Use the following command to enter the **config-sms-server** context and configure SMS server settings:

sms-server

Syntax Description

help
Shows available commands.

history
Shows a list of previously run commands.

abort
Exits the config-sms-server context without saving changes.

end
Saves changes, and the exits the config-sms-server context.

exit
Saves changes, and the exits the config-sms-server context.

quit
Exits the config-sms-server context without saving changes.

twilio
Configures SMS server settings for twilio. Enters ruckus(config-sms-server-twilio)#

clickatell
Configures SMS server settings for clickatell. Enters ruckus(config-sms-server-clickatell)#

account-sid *WORD*
Sets the account sid for twilio of sms server

auth-token *WORD*
Sets the auth token for twilio of sms server

from-phonenumber *WORD*
Sets the from phonenumber for twilio of sms server

country-code [*no-default-and-ask-user-to-input*|*default <country code default value>* | *default <country code default value> allow-change* | *default <country code default value> disallow-change*]
Sets the country code, default country code and whether to allow user input to change the country code from the default.

user-name *WORD*
Sets the user name for clickatell of sms server

password *WORD*
Sets the password for clickatell of sms server

api-id *WORD*
Sets the api id for clickatell of sms server

show
Displays the SMS server settings.

customized
Configures SMS server settings for customized server.Enters ruckus(config-sms-server-customized)#

url <WORD> <WORD>
Sets the URL for customized sms server

post <WORD>
Sets the post for customized sms server

Example

```
ruckus(config)# sms-server
ruckus(config-sms-server)# twilio
ruckus(config-sms-server-twilio)# account-sid abcdef123
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# auth-token word1234
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# country-code default +1 allow-change
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# from-phonenumber 6661231234
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# end
The SMS server settings have been updated.
Your changes have been saved.
ruckus(config-sms-server)# show
SMS Server:
  Server Type= twilio
    Account SID= abcdef123
    Auth Token= word1234
    From PhoneNumber= 6661231234
    Country Code= Use default +1 and allow user to change

ruckus(config-sms-server)# end
The SMS server settings have been updated.
Your changes have been saved.
ruckus(config)#
```

no sms-server

To disable SMS server settings, use the following command:

no sms-server

Example

```
ruckus(config)# no sms-server
The SMS server settings have been updated.
ruckus(config)#
```

country-code

Use the following command to configure SMS server country code settings:

country-code [*no-default-and-ask-user-to-input*|*default*<*WORD*> + <*NUMBER*> [*allow-change*|*disallow change*]

Example

```
ruckus(config-sms-server-twilio)# country-code default +1 allow-change
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# end
The SMS server settings have been updated.
Your changes have been saved.
ruckus(config-sms-server)# show
SMS Server:
  Server Type= twilio
    Account SID= test123
    Auth Token= test123
    From PhoneNumber= 1112223344
    Country Code= Use default +1 and allow user to change

ruckus(config-sms-server)#
```

Configure mDNS (Bonjour) Commands

Use the following commands to configure mDNS (Bonjour Gateway) service.

mdnsproxy

Use the following command to enable mDNS proxy (Bonjour Gateway) service:

mdnsproxy [**zd** | **ap**]

no mdnsproxy

Use the following command to disable mDNS proxy (Bonjour Gateway) service:

no mdnsproxy [**zd** | **ap**]

mdnsproxyrule

Use the following command to create a new Bonjour Gateway rule or modify an existing rule, and enter the config-mdnsproxyrule context:

mdnsproxyrule *ID*

no mdnsproxyrule

Use the following command to delete a Bonjour Gateway rule:

no mdnsproxyrule *ID*

Configure Bonjour Policy

The following commands can be used from within the **config-bonjourpolicy** context to configure the Bonjour policy.

bonjour-policy

To create or edit a Bonjour policy, use the following command:

bonjour-policy *WORD*

Syntax Description

help
Shows available commands

history
Shows a list of previously run commands

no mdnsproxyrule
Delete mDNSproxy rule

mdnsproxyrule *ID*
Add/update mDNSproxy rules

note *NOTE*
Rule comments

end
Save the current rule and quit

exit
Save the current rule and quit

abort
Discard the current rule and quit

quit
Discard the current rule and quit

Example

```
ruckus(config)# bonjour-policy bonjour1
ruckus(config-bonjourpolicy)# note bonjourpolicy1
ruckus(config-bonjourpolicy)# end
Your changes have been saved.
ruckus(config)# show bonjour-policy
bonjour-policy:
  ID: 1
  Name: bonjour1
  Description: bonjourpolicy1
  rule:
ruckus(config)#
```

no bonjour-policy

To delete a Bonjour policy, use the following command:

no bonjour-policy *WORD*

Configure mDNS Proxy Rules

The following commands can be used from within the **config-mdnsproxyrule** context to configure the Bonjour Gateway bridge service rule.

Syntax Description

help
Shows available commands

history
Shows a list of previously run commands

service *Service-Name*
Service name in ? list, or new bonjour rule

from-vlan *VLAN-From*
VLAN from

to-vlan *VLAN-to*
VLAN to

note *NOTE*
Rule comments

show
Show the current edited rule

end
Save the current rule and quit

abort
Discard the current rule and quit

quit
Discard the current rule and quit

Example

```
ruckus(config-bonjourpolicy)# mdnsproxyrule 1
ruckus(config-policyrule)# service AirDisk
ruckus(config-policyrule)# from-vlan 220
ruckus(config-policyrule)# to-vlan 1
ruckus(config-policyrule)# note "share printer to vlan1"
ruckus(config-policyrule)# end
ruckus(config-bonjourpolicy)# end
ruckus(config)# show bonjour-policy
bonjour-policy:
  ID: 1
  Name: bonjour1
  Description: bonjourpolicy1
  rule:
   1:
    mdnsservice: AirDisk
    from_vlan:  br0.220
    to_vlan:        br0
    Notes:       share printer to vlan1
ruckus(config)#
```

Configure Bonjour Fencing Policy

To create a Bonjour Fencing policy and enter the **config-bonjourfencing** context, use the following command:

bonjour-fencing <*NAME*>

Syntax Description

bonjour-fencing

Configure a Bonjour Fencing policy.

NAME

Set the name of the fencing policy.

no <ID>	Delete fencing rules
show	Show the current edited bonjour fence
description	Sets the bonjour fence description.
fencerule <ID>	Add/Update fence rules
end	Save current rule and quit
exit	Save current rule and quit
abort	Discard current rule and quit
quit	Discard current rule and quit

Defaults

None.

Example

```
ruckus(config)# bonjour-fencing fence1
ruckus(config-bonjourfencing)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  no <ID>               Delete fencing rules
  show                  Show the current edited bonjour fence
  description <WORD>    Sets the bonjour fence description.
  fencerule <ID>        Add/Update fence rules
  end                   Save current rule and quit
  exit                  Save current rule and quit
  abort                 Discard current rule and quit
  quit                  Discard current rule and quit
ruckus(config-bonjourfencing)#
```

show

To display Bonjour Fencing settings, use the following command:

show

Example

```
ruckus(config-bonjourfencing)# show
bonjour-fence:
  ID:
  Name: bonjourfence1
  Description:
  rule:
ruckus(config-bonjourfencing)#
```

description

To set the Precedence Policy rule description, use the following command:

description

Example

```
ruckus(config-precе-rule)# description "Default precedence policy"
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-precе-rule)#
```

fencerule

To add or update Bonjour fencing rules, use the following command:

fencerule <ID>

Example

```
ruckus(config-bonjourfencing)# fencerule 1
ruckus(config-fencerule)#
```

source-type

To set the fence rule to wired or wireless, use the following command:

source-type <TYPE>

Example

```
ruckus(config-fencerule)# source-type Wireless
ruckus(config-fencerule)#
```

device-mac

To set the device MAC address, use the following command:

device-mac <MAC>

Example

```
ruckus(config-fencerule)# device-mac
  <MAC>                Enter device mac (for example, XX:XX:XX:XX:XX:XX,XX:XX:XX:XX:XX:XX)
ruckus(config-fencerule)#
```

anchor-ap

To set the anchor AP, use the following command:

anchor-ap <MAC>

Example

```
ruckus(config-fencerule)# anchor-ap 01:02:03:04:05:06
ruckus(config-fencerule)#
```

service

To set the service to be fenced, use the following command:

service <Service-Name>

Options

The following services can be selected:

```
 AirDisk|AirPlay|AirPort Management|AirPrint|AirTunes|Apple File Sharing|Apple
                       Mobile Devices (Allows Sync with iTunes over Wi-Fi)|Apple TV|iCloud
                       Sync|iTunes Remote|iTunes Sharing|Open Directory Master|Optical Disk
                       Sharing|Ruckus Controller|Screen Sharing|Secure File Sharing|Secure Shell
                       (SSH)|World Wide Web (HTTP)|World Wide Web SSL (HTTPS)|Workgroup
                       Manager|Xgrid|GoogleChromeCast|
```

Example

```
ruckus(config-fencerule)# service AirDisk
ruckus(config-fencerule)#
```

fencing-range

To set the fencing range, use the following command:

fencing-range <RANGE>

Options

Same AP

1-Hop AP Neighbors

Example

```
ruckus(config-fencerule)# fencing-range Same AP
ruckus(config-fencerule)#
```

Using Debug Commands

Debug Commands Overview

This section describes the commands that you can use to debug ZoneDirector and connected APs, and to configure debug log settings.

From the privileged commands context, type **debug** to enter the debug context. To show a list of commands available from within the debug context, type **help** or **?**.

General Debug Commands

The following section describes general debug commands can be executed from within the debug context.

help

Shows available commands.

list-all

List all available commands.

history

Shows a list of previously run commands.

quit

Exits the debug context.

fw_upgrade

To upgrade the controller's firmware, use the following command:

fw_upgrade *protocol://server ip|server name/path/image name* [**-f**]

fw_upgrade OPTIONS

Syntax Description

fw_upgrade

Upgrade the controller's firmware

protocol

Protocol for image transfer (FTP, TFTP, HTTP, KERMIT)

OPTIONS

-p

protocol

-s

server IP address or name

-n

image name with path on the server

-f

non-verbose mode

-h

fw_upgrade help message

Defaults

None.

Example

```
ruckus(debug)# fw_upgrade -p tftp -s 192.168.0.14 -n zd-upgrade.img
------------------------------------------------------------------------
 ** Starting CLI Upgrade  **
------------------------------------------------------------------------
        Protocol  : tftp
        Server IP : 192.168.0.14
        Image Name: zd-upgrade.img
------------------------------------------------------------------------
 ** Checking if memory is sufficient **
------------------------------------------------------------------------
.
----->Sufficient memory to perform upgrade
------------------------------------------------------------------------
 ** Downloading ZD image **
------------------------------------------------------------------------
.......................
...
```

restore

To restore the controller's configuration, use the following command:

restore [**all** | **failover** | **policy**]

restore all

To reestore everything, use the following command:

restore all *IP-ADDR FILE-NAME*

restore failover

To restore everything, except system name and IP address settings, use the following command:

restore failover *IP-ADDR FILE-NAME*

restore policy

To restore only WLAN settings, access control list, roles, and users, use the following command:

restore policy *IP-ADDR FILE-NAME*

delete-station

To deauthorize the station with the specified MAC address, use the following command.

delete-station *MAC*

Syntax Description

delete-station

Delete the station with the specified MAC address

MAC

The MAC address of the station that will be deleted

Defaults

None.

Example

```
ruckus# debug
ruckus(debug)# delete-station 00:10:77:01:00:01
The command was executed successfully.
```

restart-ap

To restart the device with the specified MAC address, use the restart ap command.

restart-ap *MAC*

Syntax Description

restart-ap

Restart the device with the specified MAC address

MAC

The MAC address of the device to be restarted

Defaults

None.

Example

```
ruckus# debug
ruckus(debug)# restart-ap 00:13:92:EA:43:01
The command was executed successfully.
```

wlaninfo

Configures and enables debugging of WLAN service settings. Enter wlaninfo without arguments to see all options.

wlaninfo *OPTIONS*

Syntax Description

wlaninfo

Enable logging of WLAN info

OPTIONS

Configure WLAN debug information options

Defaults

None.

Example

```
ruckus(debug)# wlaninfo -W -x
WLAN svc "Rhastah1" (id=1):
  WLAN ID = 0, ref_cnt = 7
  SSID = "Rhastah1" enabled
  Apply to 11a and 11g/b radios
  Closed system = No, Privacy = Enabled, ACL enabled Guest-WLAN = No
  WISPr-WLAN = No
  Access Policy = 0/0, Web Auth = No, grace period = 0 (0 means disable), max clients = 100
  WMM = enabled priority = 0 uplink = DISABLE downlink = DISABLE
  Cipher = Clear Text Local bridging = Enabled, DHCP relay = Disabled, vlan = 1, dvlan = Disabled,
bgscan = Enabled
  Proxy ARP = Disabled (IE:Disabled)
  wep key index = 0, wep key len = 0
  PAP message authenticator = Enabled, EAP-Failure = Disabled
  Device Policy = 0, Precedence = 1
  Smart Roam = Disabled Roam-factor = 1
  Hotspot2.0--WLAN = No (id=0)
  Num of VAP deployed: 6
    VAP: 04:4f:aa:0c:b1:0c, number of stations = 0
    VAP: 04:4f:aa:0c:b1:08, number of stations = 0
    VAP: c0:c5:20:3b:91:fc, number of stations = 1
    VAP: c0:c5:20:3b:91:f8, number of stations = 0
    VAP: c4:10:8a:1f:d1:fc, number of stations = 1
    VAP: c4:10:8a:1f:d1:f8, number of stations = 0
  ACL 1 (System): default=Allowed system-wide=yes
  Auth Policy:
    Auth Algorithms:RSN/PSK  RSN/Dynamic PSK
    Auth Server Type: None
    WPA Verson: WPA2
    WPA Auth and Key Managment: WPA PSK
    WPA PSK Pass Phrase:password
```

```
    WPA PSK Prev Pass Phrase:
    WPA PSK Pass Phrase (Hex):
        31306173 68613130
    WPA PSK:
        6aa94bac df5346ac ecc7d38f a14a6dbf
        7ba6f6f8 df2a4943 b23c9655 ac4f33de
    WPA Prev PSK:
        00000000 00000000 00000000 00000000
        00000000 00000000 00000000 00000000
    GTK life time = 28800 seconds, GTK Life size = 2000 Kpkts
    GMK life time = 86400 seconds, Strict Rekey = No
    WPA Group Cipher Suites:0x00000010
      CCMP
    WPA Pairwise Cipher Suites:0x00000010
      CCMP
  NASID Type:  = wlan-bssid
  PMK Cache Time:  = 43200
  PMK Cache for Reconnect:  = enabled
  Roaming Acct-Inerim-Update:  = disabled
  Called-Station-Id-type: 0
  Classification: enabled
  UDP Heuristic Classification: enabled
  Directed Multicast: enabled
  IGMP Snooping: enabled
  MLD Snooping: disabled
  ToS Classification: enabled
  Dot1p Classification: disabled
  Multicast Filter: disabled
  Directed Threshold: 5
  Priority: Voice:0   Video:2   Data:4   Background:6
  Force DHCP: disabled   Timeout:10

*** Total WLAN Entries: 1 ***
ruckus(debug)#
```

save_debug_info

Saves debug information.

save_debug_info *IP-ADDR FILE-NAME*

Syntax Description

save_debug_info
: Save debug log file

IP-ADDR
: The destination IP address

FILE-NAME
: The destination file name

Defaults

None.

Example

```
ruckus(debug)# save_debug_info 192.168.11.26 log.log
Creating debug info file ...
Done
Sending debug info file to "log.log@192.168.11.26" ...
```

```
...
ruckus(debug)#
```

save-config

Upload the configuration file to the designated TFTP site.

save-config *IP-ADDR FILE-NAME*

Syntax Description

save-config
: Upload the configuration file

IP-ADDR
: The destination IP address

FILE-NAME
: The destination file name

Defaults

None.

Example

```
ruckus(debug)# save-config 192.168.11.26 config.log
Creating backup config file
Done
Uploading backup config file
...
ruckus(debug)#
```

emfd-malloc-stats

Show uclibc malloc statistics.

Example

```
ruckus(debug)# emfd-malloc-stats
===== [pid=350] Sat Feb 15 15:58:42 2014
total bytes allocated             =    2691072
total bytes in use                =    2471920
total bytes freed                 =     219152
total allocated mmap space        =     311296
number of free chunks             =         18
number of fastbin blocks          =          0
space in freed fastbin blocks     =          0
bin[ 1]: chunk_num=     1, list_len=     1, alloc_bytes=      4152, min_chunk[1]=      4152,
max_chunk[1]=      4152
bin[ 3]: chunk_num=     3, list_len=     3, alloc_bytes=        72, min_chunk[1]=        24,
max_chunk[1]=        24
bin[ 4]: chunk_num=     1, list_len=     1, alloc_bytes=        32, min_chunk[1]=        32,
max_chunk[1]=        32
bin[ 5]: chunk_num=     4, list_len=     4, alloc_bytes=       160, min_chunk[1]=        40,
max_chunk[1]=        40
bin[ 6]: chunk_num=     1, list_len=     1, alloc_bytes=        48, min_chunk[1]=        48,
max_chunk[1]=        48
```

```
bin[10]: chunk_num=     1, list_len=     1, alloc_bytes=        80, min_chunk[1]=        80,
max_chunk[1]=        80
bin[14]: chunk_num=     1, list_len=     1, alloc_bytes=       112, min_chunk[1]=       112,
max_chunk[1]=       112
bin[45]: chunk_num=     1, list_len=     1, alloc_bytes=      2928, min_chunk[1]=      2928,
max_chunk[1]=      2928
bin[49]: chunk_num=     1, list_len=     1, alloc_bytes=      5168, min_chunk[1]=      5168,
max_chunk[1]=      5168
bin[51]: chunk_num=     2, list_len=     2, alloc_bytes=     14952, min_chunk[1]=      7248,
max_chunk[2]=      7704
bin[52]: chunk_num=     1, list_len=     1, alloc_bytes=      8208, min_chunk[1]=      8208,
max_chunk[1]=      8208
ruckus(debug)#
```

speedflex

To enable SpeedFlex on APs, use the following command:

speedflex

Defaults

Enabled.

Example

```
ruckus(debug)# speedflex
The System SpeedFlex has been enabled.
ruckus(debug)#
```

no speedflex

To disable SpeedFlex on APs, use the following command:

no speedflex

Defaults

Enabled.

Example

```
ruckus(debug)# no speedflex
The System SpeedFlex has been disabled.
ruckus(debug)#
```

Show Commands

This section describes the show commands available within the debug context.

show ap

To display AP information for all APs, use the following command:

show ap

Syntax Description

show ap

Display a list of all approved APs.

Example

```
ruckus(debug)# show ap
AP:
  ID:
    1:
      MAC Address= 44:1e:94:1b:f0:d0
      Model= r510
      Approved= Yes
      Device Name= RuckusAP
      Description=
      Location=
      GPS=
      CERT = Normal
      Bonjour-policy=
      Bonjour-fencing=
      Group Name= System Default
      Channel Range:
        A/N= 36,40,44,48,149,153,157,161 (Disallowed= )
        B/G/N= 1,2,3,4,5,6,7,8,9,10,11 (Disallowed= )
      Radio a/n:
        Channelization= Auto
        Channel= Auto
        WLAN Services enabled= Yes
        Tx. Power= Auto
        WLAN Group Name= Default
        Call Admission Control= OFF
        Protection Mode= Auto
      Radio b/g/n:
        Channelization= Auto
        Channel= Auto
        WLAN Services enabled= Yes
        Tx. Power= Auto
        WLAN Group Name= Default
        Call Admission Control= OFF
        Protection Mode= 2
      Override global ap-model port configuration= No
      Network Setting:
        Protocol mode= Use Parent Setting
        Device IP Settings= Keep AP's Setting
        IP Type= DHCP
        IP Address= 192.168.0.10
        Netmask= 255.255.255.0
        Gateway= 192.168.0.1
        Primary DNS Server=
        Secondary DNS Server=

        Device IPv6 Settings= Keep AP's Setting
```

```
    IPv6 Type= Auto Configuration
    IPv6 Address= ::461e:98ff:fe1b:f0d0
    IPv6 Prefix Length= 64
    IPv6 Gateway=
    IPv6 Primary DNS Server=
    IPv6 Secondary DNS Server=
  Mesh:
    Mode= Use Parent Setting
    max hops= Use Parent Setting
  LLDP:
    Status = Use Parent Setting
  LAN Port:
    0:
      Interface= eth0
      Dot1x= None
      LogicalLink= Up
      PhysicalLink= Up 10Mbps full
      Label= 10/100/1000 PoE LAN1
    1:
      Interface= eth1
      Dot1x= None
      LogicalLink= Down
      PhysicalLink= Down
      Label= 10/100/1000 LAN2

2:
  MAC Address= d4:c2:9e:35:c9:50
  Model= r610
  Approved= Yes
  Device Name= RuckusAP
  Description=
  Location=
  GPS=
  CERT = Normal
  Bonjour-policy=
  Bonjour-fencing=
  Group Name= System Default
  Channel Range:
    A/N= 36,40,44,48,149,153,157,161 (Disallowed= )
    B/G/N= 1,2,3,4,5,6,7,8,9,10,11 (Disallowed= )
  Radio a/n:
    Channelization= Auto
    Channel= Auto
    WLAN Services enabled= Yes
    Tx. Power= Auto
    WLAN Group Name= Default
    Call Admission Control= OFF
    Protection Mode= Auto
  Radio b/g/n:
    Channelization= Auto
    Channel= Auto
    WLAN Services enabled= Yes
    Tx. Power= Auto
    WLAN Group Name= Default
    Call Admission Control= OFF
    Protection Mode= 2
  Override global ap-model port configuration= No
  Network Setting:
    Protocol mode= Use Parent Setting
    Device IP Settings= Keep AP's Setting
    IP Type= DHCP
    IP Address= 192.168.0.3
    Netmask= 255.255.255.0
    Gateway= 192.168.0.1
    Primary DNS Server=
    Secondary DNS Server=

    Device IPv6 Settings= Keep AP's Setting
    IPv6 Type= Auto Configuration
    IPv6 Address= ::d6c1:9eff:fe35:c950
    IPv6 Prefix Length= 64
    IPv6 Gateway=
```

```
        IPv6 Primary DNS Server=
        IPv6 Secondary DNS Server=
      Mesh:
        Mode= Use Parent Setting
        max hops= Use Parent Setting
      LLDP:
        Status = Use Parent Setting
      LAN Port:
        0:
          Interface= eth0
          Dot1x= None
          LogicalLink= Up
          PhysicalLink= Up 1000Mbps full
          Label= 10/100/1000 PoE LAN1
        1:
          Interface= eth1
          Dot1x= None
          LogicalLink= Down
          PhysicalLink= Down
          Label= 10/100/1000 LAN2
      PoE Mode= Auto
      802.3af PoE Tx. chain= 2


ruckus(debug)#
```

show station

Displays a list of all connected stations (or clients).

show station

Syntax Description

show station

Show all connected stations

Defaults

None.

Example

```
ruckus(debug)# show station
Clients List:
  Client:
    MAC Address= 6c:62:6d:1b:e3:00
    User Name=
    IP Address= 192.168.11.11
    IPv6 Address=
    Access Point= 04:4f:aa:0c:b1:00
    WLAN= Ruckus1
    Channel= 1
    Signal (dB)= 53

  Client:
    MAC Address= 00:22:fb:ad:1b:2e
    User Name=
    IP Address= 192.168.11.7
    IPv6 Address=
    Access Point= 04:4f:aa:0c:b1:00
    WLAN= Ruckus1
    Channel= 165
```

```
    Signal (dB)= 42

ruckus(debug)#
```

show logs

Displays a list of debug log components.

show logs

Syntax Description

show logs

Display debug log components

Defaults

None.

Example

```
ruckus(debug)# show logs
Debug Logs:
  All= Enabled
  Sys-mgmt= Enabled
  Mesh= Enabled
  Web-auth= Enabled
  Rf-mgmt= Enabled
  Radius= Enabled
  Hotspot-srv= Enabled
  Aps= Enabled
  Net-mgmt= Enabled
  802.1x= Enabled
  Web-svr= Enabled
  802.11= Enabled
  Dvlan= Enabled
  Smart-redundancy= Enabled
  Debug logs of specified MAC address:
    Status= Disabled
ruckus(debug)#
```

show tls

Displays TLS support status.

show tls

Example

```
ruckus(debug)# show tls
  TLS= Support TLS 1.0 and TLS 1.1
ruckus(debug)#
```

show speedflex

To display SpeedFlex enabled status, use the following command:

show speedflex

Example

```
ruckus(debug)# show speedflex
  SpeedFlex= Enabled
ruckus(debug)#
```

show remote-troubleshooting

To display remote troubleshooting status, use the following command:

show remote-troubleshooting

Example

```
ruckus(debug)# show remote-troubleshooting
Ruckus CA troubleshooting is stopped!
The server addr is: None

ruckus(debug)#
```

ps

To display information about all processes that are running, use the following command:

ps

Example

```
ruckus(debug)# ps
  PID PPID USER       VSZ STAT COMMAND
    1     0 root      1184 S    init
    2     0 root         0 SW   [kthreadd]
    3     2 root         0 SW   [ksoftirqd/0]
    5     2 root         0 SW<  [kworker/0:0H]
    7     2 root         0 SW   [rcu_sched]
    8     2 root         0 SW   [rcu_bh]
    9     2 root         0 SW   [migration/0]
   10     2 root         0 SW   [watchdog/0]
   11     2 root         0 SW   [watchdog/1]
   12     2 root         0 SW   [migration/1]
   13     2 root         0 SW   [ksoftirqd/1]
   15     2 root         0 SW<  [kworker/1:0H]
   16     2 root         0 SW<  [khelper]
   17     2 root         0 SW   [irq/202-msmdata]
   18     2 root         0 SW<  [writeback]
   19     2 root         0 SW<  [bioset]
   20     2 root         0 SW<  [crypto]
   21     2 root         0 SW<  [kblockd]
   22     2 root         0 SW   [khubd]
   23     2 root         0 SW   [kswapd0]
   24     2 root         0 SW   [kworker/1:1]
   25     2 root         0 SW   [fsnotify_mark]
   26     2 root         0 SW   [kworker/u4:1]
   30     2 root         0 SW   [spi32766]
   39     2 root         0 SW<  [ipv6_addrconf]
   53     2 root         0 SW<  [deferwq]
   54     2 root         0 SW   [kworker/u4:2]
   55     2 root         0 SW   [ubi_bgt0d]
   62     1 root      1172 S    /bin/sh /usr/sbin/pad.sh
```

```
  65    62 root       720 S    /usr/sbin/pad
  68     1 root      5764 S <  /usr/sbin/rsmd start
  70     1 root      5740 S <  watchdog
  79     2 root         0 SW   [ubi_bgt1d]
  81     2 root         0 SW   [ubi_bgt2d]
  83     2 root         0 SW   [ubifs_bgt2_0]
 245    68 root      5808 S <  /usr/sbin/timer start
 261     2 root         0 SW<  [gmac_workqueue]
 262     2 root         0 SW<  [nss_data_plane_]
 263     2 root         0 SW<  [nss_freq_queue]
 264     2 root         0 SW<  [coredump_wait]
 329     1 root      8444 S    /usr/sbin/tcsd
 394     2 root         0 SW<  [alloc_task_wque]
 395     2 root         0 SW<  [alloc_task_wque]
 416     1 root      5900 S    eved
 444     1 root      1172 S    klogd -c 4
 498     1 root      2668 S    /usr/bin/mosquitto -c /tmp/mosquitto.conf
 501     1 root      2676 S    /usr/bin/matrix
 512     1 root      5764 S    rksmcast
 541     1 root      2792 S    /usr/sbin/dropbear -e /var/run/-login -I 900 -p
 588    68 root      5836 S <  /usr/sbin/rfwd start
 630     2 root         0 SW<  [uif-630]
 636     1 root     17960 S    /usr/sbin/apmgr -r start
 640     1 root      9712 S    /usr/sbin/election
 651  3147 root      1168 S    sleep 300
 652     1 root      5760 S    /usr/sbin/wrad
 659     1 root      6000 S    /usr/sbin/mdnsfence -p /tmp/mdnsfence.pid -b
 669     1 root      5736 S    hs20d
 699     1 root      5924 S    /usr/sbin/channelfly -i wifi0 -q
 710     1 root      2912 S    hostapd -B -g/var/run/hostapd-global -P/var/run
 714     1 root      5868 S    /usr/sbin/channelfly -i wifi1 -q
 716     1 root      6248 S    ztmd -s
 727     1 root      5996 S    /usr/sbin/rfmd -S
 729     1 root      7784 S    /usr/sbin/wipingd
 735     1 root      7400 S    cpd
 806     1 root      6176 S    /usr/sbin/avpd -D
 822     1 root     19300 S    /usr/sbin/uf_agent
 846     1 root      7116 S    /usr/sbin/statd -D
 853     1 root     33796 S    /usr/sbin/qm_dpi -D -n 1
 862     1 root      5744 S    dbdc
 867     1 root      5736 S    /usr/sbin/PoEMgr
 899     1 root      5740 S    rflow_radiod -b -m 2
 901     1 root      3032 S    /bin/wd_feeder
1700     1 root      6652 S    /tmp/var/run/-login
1705     1 root      1168 S    sleep 1000d
1877     1 root      5720 S    snmpget -p /var/run/snmpget.pid1 -i 1
1897     1 root      5724 S    snmpwalk -p /var/run/snmpwalk.pid1 -i 1
1943  3269 root      1168 S    sleep 20
1957  2488 root      1168 S    sleep 21
1977    68 root         0 Z <  [rsmd_func]
1978    68 root         0 Z <  [rsmd_func]
1979    68 root         0 Z <  [rsmd_func]
1980    68 root         0 Z <  [rsmd_func]
1988    65 root       720 S    /usr/sbin/pad
1989  1988 root      1172 S    sh -c /bin/ps -aux
1990  1989 root      1176 R    /bin/ps -aux
2032     1 root      1176 S    /bin/sh /bin/tsyslogd.sh
2034  2032 root      3940 S    /bin/tsyslogd -r -h -n --rotate=21
2036     1 root       980 S    /usr/sbin/in.tftpd -l -s /etc/airespider-images
2088     1 root      1172 S    /bin/sh /bin/tacmon.sh
2092  2088 root      3688 S    /bin/tacmon -i 30 -r 15
2117     1 root      4384 S    /bin/emf_repo_flashsync monitor 15
2118     1 root      3072 S    ttylogd
2166     1 root      1124 S <  clusterD
2167     1 root     26348 S    stamgr -d3 -t0
2169     1 root     11996 S    apmgr_zd -r start
2230     1 root      7168 S    upnpd
2296     1 root     10432 S    getstatd
2297     1 root     41668 S    emfd
2298     1 root      5340 S N  sqlited
2300     1 root     10488 S    rhttpc
2488     1 root      1184 S    /bin/sh /usr/sbin/bonjour_mon.sh
```

```
 2882     1 root      1188 S    /sbin/udhcpc -b -i br0 --pidfile=/var/run/udhcp
 3145     1 root      2496 S    /usr/sbin/vsftpd /etc/vsftpd2.conf
 3147     1 root      1176 S    /bin/sh /bin/ftpdMon.sh
 3269     1 root      1176 S    /bin/sh /usr/sbin/pubnub_mon.sh un9418490011251
 3277  3269 root      8380 S    /usr/sbin/pubnubd un941849001125157298236287 9
 3395     2 root         0 SW   [kworker/0:1]
 3450     1 root      2580 S    radsecproxy
 3474     1 root      1172 S    /sbin/udhcpp -i br0 --pidfile=/var/run/udhcpp.p
 3535     1 root     23988 S    /bin/webs
 3757     1 root      2376 S <  /usr/sbin/zapd
 3758     1 root      5876 S    lldpd -C d4:c1:9e:35:c9:40 -S Ruckus R610 Multi
 3763  3758 root      5888 S    lldpd -C d4:c1:9e:35:c9:40 -S Ruckus R610 Multi
 3845     1 root     14740 S    /usr/bin/stainfod
 4256     1 root      1416 S    mdnsd
 4301  2488 root       744 S    /usr/sbin/dns-sd -R Ruckus-Unleashed _ruckus-un
 5266    65 root       724 S    /usr/sbin/pad
 5290     1 root      3092 S    empty -f -L /tmp/empty/icx_01.tmp -i /tmp/empty
 5292  5290 root      2860 S    dbclient -y super@192.168.0.8
14982     2 root         0 SW   [kworker/1:2]
26640   541 root      2864 R    /usr/sbin/dropbear -e /var/run/-login -I 900 -p
26651 26640 root      1176 S    /bin/sh /var/run/-login
26652 26651 root      5588 S    /bin/login
26693 26652 root     10952 S    ruckus_cli2 -p VTCeYiFPy6&rw
27890     2 root         0 SW   [kworker/0:0]
ruckus(debug)#
```

show configuration_change_log

To display the configuration change log, use the following command:

show configuration_change_log

Example

```
ruckus(debug)# show configuration_change_log
 configuration changing log is on!

ruckus(debug)#
```

Accessing a Remote AP CLI

The following command is used to access the command line interface of a connected AP and execute AP CLI commands from the controller CLI. Configuration changes made through the AP CLI may be overwritten by controller settings if the AP is restarted or reconnects to the controller.

remote_ap_cli

Use the **remote_ap_cli** command to access an AP remotely and execute AP CLI commands.

remote_ap_cli [**-q**] {**-a ap_mac** | **-A** } "*cmd arg1 arg2* .."

Syntax Description

remote_ap_cli
: Execute CLI commands in a remote AP

-q
: Do not display results

-a
: Specify AP by MAC address

ap_mac
: The AP's MAC address

-A
: All connected APs

cmd
: AP CLI command

arg
: AP CLI command argument

Example

```
ruckus(debug)# remote_ap_cli -A "get director"
---- Command 'rkscli -c "get director "' executed at c0:c5:20:3b:91:f0
------ ZoneDirector Info ------
Primary Controller   : n/a
Secondary Controller : n/a
DHCP Opt43 Code      : 3

The information of the most recent Zone Director:
  [1] 192.168.40.100

  AP is under management of ZoneDirector: 192.168.40.100 / c0:c5:20:18:97:c1,
  Currently AP is in state: RUN
OK
---- Command 'rkscli -c "get director "' executed at c4:10:8a:1f:d1:f0
------ ZoneDirector Info ------
Primary Controller   : n/a
Secondary Controller : n/a
DHCP Opt43 Code      : 3

The information of the most recent Zone Director:
  [1] 192.168.40.100

  AP is under management of ZoneDirector: 192.168.40.100 / c0:c5:20:18:97:c1,
  Currently AP is in state: RUN
```

```
OK
---- Command Execution Summary:
         success: 2
         failure: 0
           total: 2
ruckus(debug)#
```

Working with Debug Logs and Log Settings

This section describes the commands that you can use to configure and review ZoneDirector debug logs.

logs all

Enables debug logs of all debug components.

Syntax Description

logs all

Enable logging of all debug components

Usage Guidelines

Running this command can place considerable load on the system. If your ZoneDirector is already under load, running this command could potentially cause errors resulting in a reboot. In general, only use this command when working with Ruckus support to troubleshoot an issue.

Example

```
ruckus(debug)# logs all
The command was executed successfully.
ruckus(debug)# show logs
Debug Logs:
  All= Enabled
  Sys-mgmt= Enabled
  Mesh= Enabled
  Web-auth= Enabled
  Rf-mgmt= Enabled
  Radius= Enabled
  Hotspot-srv= Enabled
  Aps= Enabled
  Net-mgmt= Enabled
  802.1x= Enabled
  Web-svr= Enabled
  802.11= Enabled
  Dvlan= Enabled
  Smart-redundancy= Enabled
  Client-association= Enabled
  Debug logs of specified MAC address:
    Status= Disabled
ruckus(debug)#
```

no logs all

Disables debug logs of all debug components.

Syntax Description

no logs

Disable debug logs

all

Disable all log components

Example

```
ruckus(debug)# no logs all
The command was executed successfully.
ruckus(debug)#
```

logs comp sys-mgmt

Enables debug logs of system management components.

Syntax Description

logs

Enable debug logs

comp sys-mgmt

Component system management

Example

```
ruckus(debug)# logs comp sys-mgmt
The command was executed successfully.
ruckus(debug)# show logs
Debug Logs:
  All= Disabled
  Sys-mgmt= Enabled
  Mesh= Disabled
  Web-auth= Disabled
  Rf-mgmt= Disabled
  Radius= Disabled
  Hotspot-srv= Disabled
  Aps= Disabled
  Net-mgmt= Disabled
  802.1x= Disabled
  Web-svr= Disabled
  802.11= Disabled
  Dvlan= Disabled
  Smart-redundancy= Disabled
  Client-association= Disabled
  Debug logs of specified MAC address:
    Status= Disabled
ruckus(debug)#
```

no logs comp sys-mgmt

Disables debug logs of system management components.

logs comp mesh

Enables debug logs of mesh components.

no logs comp mesh

Disables debug logs of mesh components.

logs comp web-auth

Enables debug logs of web authentication components.

no logs comp web-auth

Disables debug logs of web authentication components.

logs comp rf-mgmt

Enables debug logs of RF management components.

no logs comp rf-mgmt

Disables debug logs of RF management components.

logs comp radius

Enables debug logs of radius components.

no logs comp radius

Disables debug logs of radius components.

logs comp hotspot-srv

Enables debug logs of hotspot services components.

no logs comp hotspot-srv

Disables debug logs of hotspot services components.

logs comp aps

Enables debug logs of AP components.

no logs comp aps

Disables debug logs of access points components.

logs comp net-mgmt

Enables debug logs of network management components.

no logs comp net-mgmt

Disables debug logs of network management components.

logs comp 802.1x

Enables debug logs of 802.1x components.

no logs comp 802.1x

Disables debug logs of 802.1x components.

logs comp web-svr

Enables debug logs of web server components.

no logs comp web-svr

Disables debug logs of web server components.

logs comp 802.11

Enables debug logs of 802.11 components.

no logs comp 802.11

Disables debug logs of 802.11 components.

logs comp dvlan

Enables debug logs of dynamic VLAN components.

no logs comp dvlan

Disables debug logs of dynamic vlan components.

logs comp smart-redundancy

Enable Smart Redundancy component debug logs.

no logs comp smart-redundancy

Disable Smart Redundancy component debug logs.

logs comp bonjour-gateway

Enable Bonjour Gateway debug logs.

no logs comp bonjour-gateway

Disable Bonjour Gateway debug logs.

logs comp mdnsd

Enable bonjour mdnsd debug logs.

no logs comp mdnsd

Disable bonjour mdnsd debug logs.

logs comp client-association

Enable client association debug logs.

no logs comp client-association

Disable client association debug logs.

logs mac

Enables and sets filter running logs based on specified mac address.

logs mac *MAC*

Syntax Description

logs

Enable debug logs

mac

Filter logs by specific MAC address

MAC

The MAC address of the device to be filtered

Example

```
ruckus(debug)# logs mac 04:4f:aa:0c:b1:00
The command was executed successfully.
ruckus(debug)#
```

no logs mac

Disables MAC address filtering on running logs.

Syntax Description

no logs

Disable debug logs

mac

Filter by MAC address

Example

```
ruckus(debug)# no logs mac
The command was executed successfully.
ruckus(debug)#
```

logs play

Starts displaying logs on console.

Syntax Description

logs

Enable debug logs

play

Start log play

Usage Guidelines

CAUTION
Running this command can place considerable load on the system. If your ZoneDirector is already under load, running this command could potentially cause errors resulting in a reboot. In general, only use this command when working with Ruckus support to troubleshoot an issue.

Example

```
ruckus(debug)# logs play
ruckus(debug)# [Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job[user auth
attempt_hash_autoexpire] at 1329285210...
[Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job at 1329285210...Done
[Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job[station auth attempt_hash_autoexpire] at
1329285210...
[Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job at 1329285210...Done
[Feb 15 05:53:33][STAMgr][debug]acsrvc_thread():ACSRVC rcv AP 04:4f:aa:0c:b1:00, IP= 192.168.11.6,
IPv6=fc00::1
...
...
ruckus(debug)# no logs play
ruckus(debug)#
```

no logs play

Stops displaying logs on console.

Syntax Description

no logs

Disable debug logs

play

Stop log play

Example

```
rruckus(debug)# logs play
ruckus(debug)# [Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job[user auth
attempt_hash_autoexpire] at 1329285210...
[Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job at 1329285210...Done
[Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job[station auth attempt_hash_autoexpire] at
1329285210...
[Feb 15 05:53:30][EMFD][debug]jobServiceFunc():Executing job at 1329285210...Done
[Feb 15 05:53:33][STAMgr][debug]acsrvc_thread():ACSRVC rcv AP 04:4f:aa:0c:b1:00, IP= 192.168.11.6,
IPv6=fc00::1
...
...
ruckus(debug)# no logs play
ruckus(debug)#
```

logs winbind

To set Winbind debug level (1-10)., use the following command:

logs winbind <*WINBIND*>

Defaults

None

Example

```
ruckus(debug)# logs winbind 10
killall: winbindd: no process killed
ruckus(debug)#
```

support-tls

To set the TLS support version, use the following command:

support-tls<*VER*>

Defaults

1.0-1.1

Example

```
ruckus(debug)# support-tls 1.0-1.1
Already support TLSv1.0 and TLSv1.1.
ruckus(debug)#
```

no support-tls

To disable TLS support, use the following command:

no support-tls*<VER>*

configuration_change_log

To record all the configuration changes, use the following command:

configuration_change_log

Defaults

Disabled.

Example

```
ruckus(debug)# configuration_change_log
configuration changing log enabled!
ruckus(debug)# show configuration_change_log
configuration changing log is on!
ruckus(debug)#
```

no configuration_change_log

To disable the record of configuration changes, use the following command:

no configuration_change_log

Defaults

Disabled.

Example

```
ruckus(debug)# no save-config-as-default
configuration changing log disabled!
ruckus(debug)# show configuration_change_log
configuration changing log is off!
ruckus(debug)#
```

Remote Troubleshooting

This section describes remote troubleshooting commands.

remote-troubleshooting server

To set the remote troubleshooting server IP address, use the following command:

remote-troubleshooting server *IP-ADDR*

remote-troubleshooting start

Enables remote troubleshooting.

Syntax Description

remote-troubleshooting
Remote troubleshooting

start
Start remote troubleshooting

Defaults

None.

Example

```
ruckus(debug)# remote-troubleshooting start
ruckus(debug)#
```

remote-troubleshooting stop

Disables remote troubleshooting.

Syntax Description

remote-troubleshooting
Remote troubleshooting

stop
Stop remote troubleshooting

Defaults

None.

Example

```
ruckus(debug)# remote-troubleshooting stop

ruckus(debug)#
```

radius-stats-wlan

Show web-auth WLAN radius statistics bins.

radius-stats-authsvr

Show web-auth WLAN radius statistics bins.

AP Core Dump Collection

This section lists the AP core dump commands.

collect_ap_coredump

Enable AP core dump collection.

collect_ap_coredump [**all** | *MAC*]

Syntax Description

collect_ap_coredupm

Collect AP core dump

all

Collect core dump from all connected APs

MAC

Specific AP MAC address

Defaults

None.

Example

```
ruckus(debug)# collect_ap_coredump all
---- Command 'apmgrinfo --coredump y ' executed at 04:4f:aa:0c:b1:00
start reporting coredump to ZD!
---- Command 'apmgrinfo --coredump y ' executed at 00:24:82:3f:14:60
start reporting coredump to ZD!
---- Command Execution Summary:
         success: 2
         failure: 0
           total: 2
rm: cannot remove '/etc/airespider-images/firmwares/ap-dump/*': No such file or directory
sh: codump_server: not found
start collecting AP's coredump !
ok
ruckus(debug)#
```

no collect_ap_coredump

Disable AP core dump collection.

Syntax Description

no collect_ap_coredump

Stop collecting AP core dump

Defaults

None.

Example

```
ruckus(debug)# no collect_ap_coredump all
---- Command 'apmgrinfo --coredump n ' executed at 04:4f:aa:0c:b1:00
stop reporting coredump to ZD!
---- Command 'apmgrinfo --coredump n ' executed at 00:24:82:3f:14:60
stop reporting coredump to ZD!
---- Command Execution Summary:
         success: 2
         failure: 0
           total: 2
rm: cannot remove '/etc/airespider-images/firmwares/ap-dump/*': No such file or directory
stop collecting AP's coredump !
ok
ruckus(debug)#
```

Script Execution

This section lists the commands that can be executed from the **script** context. The script context must be entered from the debug context.

script

Enters the script context from the debug context. You must first enter the script context before executing a script.

script

Syntax Description

script

Enter the script context

Defaults

None.

Example

```
ruckus(debug)# script
ruckus(script)#
```

quit

Exit the script context.

quit

Syntax Description

quit

Exit the script context

Defaults

None.

Example

```
ruckus(script)# quit
ruckus(debug)#
```

list

List all available scripts.

list

Syntax Description

list

List all available scripts

Defaults

None.

Example

```
ruckus(script)# list -a

 Index                          Scripts
     1                      .version.sh
ruckus(script)#
```

del

Deletes a script.

info

Display script help file

info

Syntax Description

info

Display script information

Defaults

None.

Example

```
ruckus(script)# info
info <file>
ruckus(script)#
```

exec

Execute script.

exec *file* {parameter}

Syntax Description

exec

Excecute the script

Defaults

None.

Example

```
ruckus(script)# exec
exec <file> {parameter}
ruckus(script)#
```

350 West Java Dr., Sunnyvale, CA 94089 USA
https://www.commscope.com