COMMAND REFERENCE GUIDE

Unleashed 200.7 Command Line Interface Reference Guide

Supporting Unleashed 200.7

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Preface

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 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.

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@arris.com.

When contacting us, include the following information:

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

For example:

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

Ruckus Product Documentation Resources

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

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

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

Online Training Resources

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

Contacting Ruckus Customer Services and Support

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

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

What Support Do I Need?

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

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

Open a Case

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

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

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

Self-Service Resources

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

- Technical Documentation—https://support.ruckuswireless.com/documents

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

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

About This Guide

Introduction

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

This guide is written for service operators and system administrators who are responsible for managing, configuring, and troubleshooting Ruckus 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 Support Web site at

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

What's New in this Release

The following table lists the changes in CLI commands between this release (200.7) and the previous release (200.6).

> **NOTE**
> In addition to the new and updated commands listed below, the 200.7 CLI also provides a new CLI-based Setup Wizard. For information, see *Unleashed CLI Setup Wizard*.

New	Old	Change
show sta-rename	None	New in 200.7
show sta-favorite	None	New in 200.7
switch-ap	None	New in 200.7
web-portal-force-https-redirection	None	New in 200.7
no web-portal-force-https-redirection	None	New in 200.7
upload-debug	None	New in 200.7
no upload-debug	None	New in 200.7
ap-group	None	New in 200.7
no ap-group	None	New in 200.7
Unleashed-Multi-Site-Manager	None	New in 200.7
No Unleashed-Multi-Site-Manager	None	New in 200.7
northbound	None	New in 200.7
no northbound	None	New in 200.7

New	Old	Change
show internet	None	New in 200.7
master-protect	None	New in 200.7
no master-protect	None	New in 200.7
cpu-reject-sta	None	New in 200.7
cpu-kickout-sta	None	New in 200.7
master-max-sta	None	New in 200.7
generate-token	None	New in 200.7
sta-rename	None	New in 200.7
event gateway-unreachable	None	New in 200.7
no event gateway-unreachable	None	New in 200.7
event-ap-radio-on	None	New in 200.7
event ap-radio-off	None	New in 200.7
event master-switch	None	New in 200.7
no event master-switch	None	New in 200.7
event ap-join-with-reason	None	New in 200.7
no event ap-join-with-reason	None	New in 200.7
zt-mesh-serial	None	New in 200.7
no zt-mesh-serial	None	New in 200.7
mesh-radio-option	None	New in 200.7
background-scan low-threshold	None	New in 200.7
sta-favorite	None	New in 200.7
show sta-rename	None	New in 200.7
show sta-favorite	None	New in 200.7
wan-protection	None	New in 200.7
type <LOG TYPE>	None	New in 200.7
arc-data-transmission	None	New in 200.7
no arc-data-transmission	None	New in 200.7
client-connect-log	None	New in 200.7
no client-connect-log	None	New in 200.7
bypass cna	bypass cna	Moved from config-sys to config-wlan
no bypass cna	no bypass cna	Moved from config-sys to config-wlan
authentication guest-pass-and-social-login	authentication guest-pass	Changed "guest-pass" to "guest-pass-and-social-login"
authentication only-social-login	None	New in 200.7
None	show dynamic-certs	Removed in 200.7
None	type social-media	Removed in 200.7
None	type wechat	Removed in 200.7
social-media-login wechat	None	New in 200.7

Unleashed CLI Setup Wizard

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

To perform Unleashed setup using CLI commands, use the following procedure:

1. When the Unleashed AP is in factory default state, associate to the "Configure.Me-xxxxxx" WLAN and connect to the Unleashed CLI using SSH (default IP address: **unleashed.ruckuswireless.com** or **10.154.231.125**), and log in using the default user name and password:
   - Please login: **super**
   - Password: **sp-admin**

   The Unleashed CLI Wizard Configuration Tool starts automatically.
2. Follow the instructions in the setup wizard to configure your Unleashed Master AP. The following are two examples.

Configure Unleashed AP in Bridge Mode

```
Please login: super
Password: ********


Welcome to Ruckus Wireless Unleashed CLI Setup Wizard


Would you like to start the Setup Wizard? [yes/no]: yes

Enter Administrative User Name (32 characters max) [admin]:
admin
Enter Administrator Password (4-32 characters):
*****
Re-enter Administrator Password (4-32 characters):
*****

Enter System Name (32 characters max) [Ruckus-Unleashed]:
Unleashed

Enter Country Code (or 'help' to show the list) [US]: US

Enable Mesh [yes/NO]? no

Enable Gateway Mode [yes/NO]? no

Enter WAN IP type [1]:
     1: DHCP Mode;
     2: Manual Mode;
1

Enable WLANs [YES/no]? yes

Enter Wireless LAN (ESSID, 1-32 characters) [Ruckus-Wireless 1]:
Unleashed-SSID
Is it an Open WLAN [yes/NO]? no
Enter the WPA2 Passphrase (8-63 characters): ********
Re-enter the WPA2 Passphrase (8-63 characters):
********

Please review the following settings:
System Name=                Unleashed
Administrator Name=         admin
Country Code=               US
Mesh Supported=             Disable
Gateway Mode Supported=     Disable
IPv4 Mode=                  DHCP
WLAN ESSID=                 Unleashed-SSID
Wireless Authentication=    WPA2_PSK
```

```
Done with the Setup Wizard [yes/no]? yes

Save the configuration ...


It will take a few minutes to complete, do not power off the AP! This AP will reboot automatically.

Welcome to Ruckus Unleashed Network Command Line Interface
ruckus>
```

Configure Unleashed AP in Gateway Mode

```
Please login: super
Password: ********


Welcome to Ruckus Wireless Unleashed CLI Setup Wizard


Would you like to start the Setup Wizard? [yes/no]: yes

Enter Administrative User Name (32 characters max) [admin]:
admin
Enter Administrator Password (4-32 characters):
*****
Re-enter Administrator Password (4-32 characters):
*****

Enter System Name (32 characters max) [Ruckus-Unleashed]:
Unleashed-Gateway

Enter Country Code (or 'help' to show the list) [US]: US

Enable Mesh [yes/NO]? no

Enable Gateway Mode [yes/NO]? yes

Enter AP R510 WAN Port:
    1: port1, eth0, UP:
    2: port2, eth1, DOWN:
1

Enter WAN IP type [1]:
     1: DHCP Mode;
     2: Manual Mode;
     3: PPPOE Mode;
1

Enter LAN & WLAN IP Address [10.106.0.1]:
192.168.1.1
Enter LAN & WLAN IP Netmask [255.255.0.0]:
255.255.255.0
Enter Client Starting IP Address [10.106.0.2]:
192.168.1.2
Enter Client Ending IP Address [10.106.7.209]:
192.168.1.200

Enter Lease Time [2]:
    1: 6 hours;
    2: 12 hours;
    3: 1 day;
    4: 2 days;
    5: 1 week;
    6: 2 weeks;

1

Enable WLANs [YES/no]? yes
```

```
Enter Wireless LAN (ESSID, 1-32 characters) [Ruckus-Wireless 1]:
Unleashed-SSID
Is it an Open WLAN [yes/NO]? no
Enter the WPA2 Passphrase (8-63 characters):
********
Re-enter the WPA2 Passphrase (8-63 characters):
********

Please review the following settings:
System Name=                Unleashed-Gateway
Administrator Name=         admin
Country Code=               US
Mesh Supported=             Disable
Gateway Mode Supported=     Enable
WAN Port=                   port1 eth0 UP
IPv4 Mode=                  DHCP
LAN Port IPv4 Address Info= 192.168.1.1/255.255.255.0
Client Starting IPv4=       192.168.1.2
Client Ending IPv4=         192.168.1.200
Lease Time=                 6 hours
WLAN ESSID=                 Unleashed-SSID
Wireless Authentication=    WPA2_PSK


Done with the Setup Wizard [yes/no]? yes

Save the configuration ...



It will take a few minutes to complete, do not power off the AP! This AP will reboot automatically.

Welcome to Ruckus Unleashed Network Command Line Interface
ruckus>
```

Understanding the Unleashed Command Line Interface

Introduction

The Ruckus Unleashed Command Line Interface (CLI) is a software tool that allows you to configure and manage your Unleashed network - including the Unleashed Master AP and all currently managed member APs - using CLI commands.

Using the command line interface, you can configure Unleashed Master AP system settings, access points, wireless networks and client connection settings, or view current status information for each component of your Ruckus Unleashed 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 Unleashed CLI.

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

Requirements

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

- A computer that you will designate as the admin computer
- A network connection to the Unleashed Master AP
- An SSH (secure shell) client such as PuTTY

Step 1: Connecting the Administrative Computer to Unleashed

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

- Using an Ethernet Connection on page 36
- Using a Serial Connection on page 36

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 Unleashed 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 an Ethernet Connection

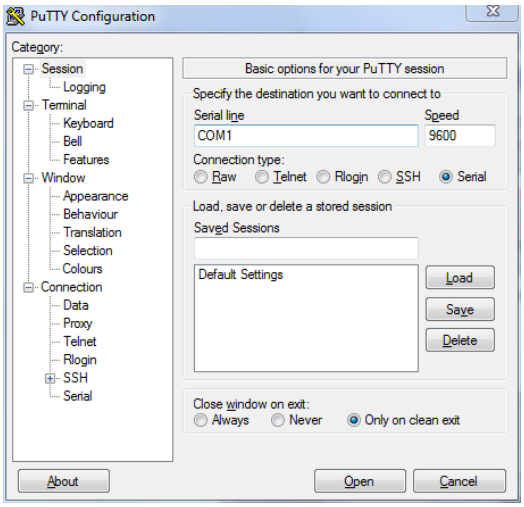
1. Ensure that Unleashed's IP address is reachable from the administrative computer. In factory default state, Unleashed's IP address is **192.168.0.1**.
2. Continue to *"Step 2: Start and Configure the SSH Client"*.

Using a Serial Connection

To start and configure the SSH client:

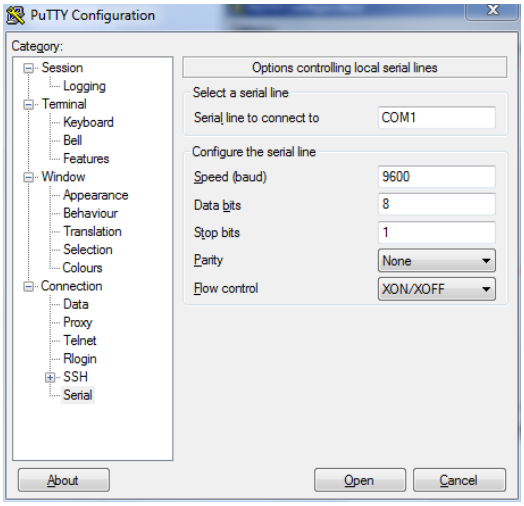
1. Start PuTTY. The PuTTY Configuration dialog box appears, showing the **Session** screen.
2. In **Connection type**, select **Serial** if you are connecting via serial cable.

FIGURE 1 Select Serial as the connection type



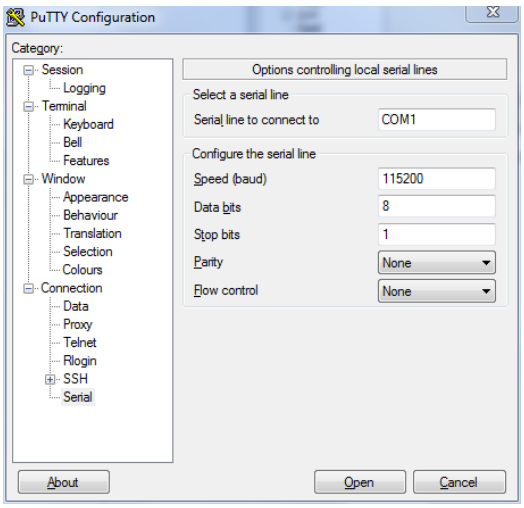
3. Under **Category**, click **Connection** > **Serial**. The serial connection options appear on the right side of the dialog box, displaying PuTTY's default serial connection settings.

FIGURE 2 PuTTY's default serial connection settings



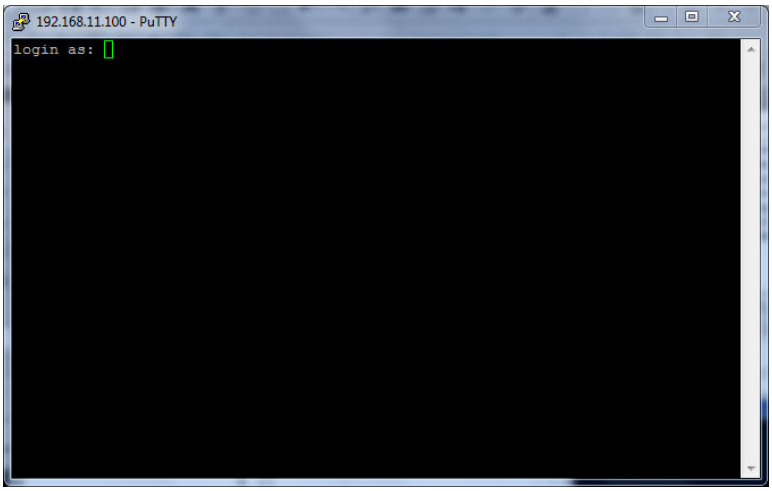
4. Configure the serial connection settings as follows:
   - **Serial line to connect to**: Type the COM port name to which you connected the RS-232 cable.
   - **Bits per second**: 115200
   - **Data bits**: 8
   - **Stop bits**: 1
   - **Parity**: None
   - **Flow control**: None

FIGURE 3 PuTTY's serial connection settings for connecting to Unleashed



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

FIGURE 4 The PuTTY console displaying the login prompt



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

Step 3: Log Into the CLI

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

You are now logged into the Unleashed 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**).

Using the ? Command

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

Example

To display commands within the debug context, enter the following command:

ruckus# debug

ruckus(debug)# ?

help
Shows available commands.

list-all
Lists all available commands.

history
Shows a list of previously run commands.

quit
Exits the debug context.

fw_upgrade
Upgrades the controller's firmware.

delete-station *MAC*
Disassociates a station.

restart-ap *MAC*
Restarts a device.

wlaninfo
Configures and enables debugging of WLAN service settings.

show
Contains commands that can be executed from within the context.

ps
Displays information about all processes that are running (ps -aux).

save_debug_info *IP-ADDR FILE-NAME*
Saves debug information.

remote_ap_cli
Excutes AP CLI command in remote AP.

save-config *IP-ADDR FILE-NAME*
Upload the configuration to the designated TFTP site.

logs
Contains commands that can be executed from within the context.

no
Contains commands that can be executed from within the context.

remote-troubleshooting
Troubleshooting commands group.

collect_ap_coredump
Enable AP core dump collection.

script
Manages system script for debug.

Top-Level Commands

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

exit	End the CLI session.
help	Show available commands.
quit	End the CLI session.
history	Show a list of previously run commands.
disable	Disable privileged commands.
ping <IP-ADDR/ DOMAIN-NAME>	Send ICMP echo packets to an IP/IPv6 address or domain name.
reboot	Reboot the Master.
shutdown	Shut down Unleashed, to power on Unleashed again, press the power.
set-factory	Reset the Master to factory defaults.
switch-ap	Reset the Master to factory defaults.
config	Enter the config context.
logo	Configure Ruckus logo. Options are "logo nodog" and "logo default."
debug	Enter the debug context.
show	Display system options and settings.
reset	Reset RADIUS statistics commands.
session-timeout <NUMBER>	Set the CLI session timeout.
ap-mode	Run AP CLI (set/get) in Master AP

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.

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 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 Unleashed Discovery:
    Status= Disabled
  Management VLAN:
    Status= Keep AP's setting
  Auto Recovery= 30 minutes
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= Ruckus
  IP Address= 192.168.40.100
  MAC Address= 00:13:11:01:01:01
  Uptime= 4d 0h 18m
  Model= ZD1112
  Licensed APs= 12
  Serial Number= 000000000011
  Version= 9.8.0.0 build 112

Devices Overview:
  Number of APs= 3
  Number of Client Devices= 2
  Number of Rogue Devices= 15

Usage Summary:
  Usage of 1 hr:
    Max. Concurrent Users= 2
    Bytes Transmitted= 45.87M
    Number of Rogue Devices= 15
  Usage of 24 hr:
    Max. Concurrent Users= 3
    Bytes Transmitted= 5.90G
    Number of Rogue Devices= 50

Memory Utilization:
  Used Bytes= 61009920
  Used Percentage= 47%
  Free Bytes= 67158016
  Free Percentage= 53%

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= 00:13:11:01:01:01
    Physical Link= up
    Speed= 1000Mbps
  Port  1:
    Interface= eth1
    MAC Address= 00:13:11:01:01:02
    Physical Link= up
    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
ruckus# show techsupport
System Overview:
  Name= Ruckus
  IP Address= 192.168.40.100
  MAC Address= 00:13:11:01:01:01
  Uptime= 15d 18h 44m
  Model= ZD1112
  Licensed APs= 12
  Serial Number= 000000000011
  Version= 9.7.0.0 build 155

Devices Overview:
  Number of APs= 3
  Number of Client Devices= 2
  Number of Rogue Devices= 0

Usage Summary:
  Usage of 1 hr:
    Max. Concurrent Users= 2
    Bytes Transmitted= 76.66M
    Number of Rogue Devices= 0
  Usage of 24 hr:
    Max. Concurrent Users= 0
    Bytes Transmitted= 2.24G
    Number of Rogue Devices= 0

Memory Utilization:
  Used Bytes= 95956992
  Used Percentage= 74%
  Free Bytes= 32210944
  Free Percentage= 26%

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
...
...
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 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 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 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 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 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 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, 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
      Unleashed Administration:
        Status= Disallowed
      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
      Unleashed Administration:
        Status= Disallowed
      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 Application Policy Commands

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

show app-policy

show app-policy

Syntax Description

show
Display information

app-policy
Display application policies

Defaults

None.

Example

```
ruckus# show app-policy
Application Policy:
  ID:
ruckus#
```

show user-app-ip

show user-app-ip

Syntax Description

show
Display information

license
Display IP-based user defined applications

Defaults

None.

Example

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

show user-app-port

show user-app-port

Syntax Description

show

Display information

license

Display port-based user defined applications

Defaults

None.

Example

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

Show Station Rename Commands

Use the **show sta-rename** command to display the current renamed station list.

show sta-rename

To display the current renamed station list, use the following command:

show sta-rename

Example

```
ruckus# show sta-rename
Displays sta rename list.
    MAC Address= 6C:AA:B3:00:00:A0
    rename= my-iphone


All sta rename number: 1
```

Show Station Favorite Commands

Use the **show sta-favorite** command to display the current favorite station list.

show sta-favorite

To display the current favorite station list, use the following command:

show sta-favorite

Example

```
ruckus# show sta-favorite
Displays sta favorite list.
    MAC Address= aa:aa:aa:aa:aa:aa
    MAC Address= bb:bb:bb:bb:bb:bb


All sta favorite number: 2
```

Configuring Master Settings

Configuration Commands Overview

This section describes the commands that you can use to configure Unleashed 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 static-route

Displays a list of all static route entries.

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 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 app-policy

Displays the application policy settings.

show user-app-ip

Displays the user-defined IP-based application settings.

show user-app-port

Displays the user-defined application port mapping settings.

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 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 usb-software

Displays USB Software Package information.

show location-services

Displays a list of configured location services.

show sta-rename

Displays a list of renamed stations.

show sta-favorite

Displays a list of favorite stations.

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*

show bonjour-fencing

To display Bonjour Fencing rules, use the following command:

show bonjour-fencing *name*

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)#
```

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

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)#
```

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)#
```

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

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

no usb-software-override

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

no usb-software-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

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

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

radio-band

To set the radio band of the AP, use the following command:

radio-band *WORD*

Syntax Description

radio-band
Configure radio band mode

WORD
Set to 2.4 or 5 GHz radio mode

Usage Guidelines

This command is available only on APs that support band switching between 2.4GHz and 5GHz radio band modes.

Example

```
ruckus(config-ap)# radio-band 5
Your changes have been saved.
ruckus(config-ap)#
```

no radio-band-override

To disable the AP radio band override, use the following command:

no radio-band-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.

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)#
```

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)#
```

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 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)#
```

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.

devinfo *WORD*

Set the operating system type 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 application policy, use the following command:

description

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)#
```

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 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)#
```

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

timezone

To configure time zone settings, use the following command:

timezone *TIMEZONE*

Defaults

GMT+0

Example

```
ruckus(config-sys)# timezone +8
The timezone settings have been updated.
ruckus(config-sys)#
```

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

ftp

Enable FTP server.

no ftp

Disable FTP server.

mgmt-if

To enable the management interface, use the following command:

mgmt-if

Defaults

Disabled.

Example

```
ruckus(config-sys)# mgmt-if
ruckus(config-sys-mgmt-if)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  abort                 Exits the config-sys-mgmt-if context without saving changes.
  end                   Saves changes, and then exits config-sys-mgmt-if context.
  exit                  Saves changes, and then exits config-sys-mgmt-if context.
  quit                  Exits the config-sys-mgmt-if context without saving changes.
  ip                    Contains commands that can be executed from within the context.
  show                  Displays current management interface settings.
ruckus(config-sys-mgmt-if)#
```

ip addr

To configure the IP address of the management interface, use the following command:

ip addr *IP-ADDR NET-MASK*

Syntax Description

IP-ADDR

Enter the IP address.

NET-MASK

Set the Netmask for the address.

Defaults

None.

Example

```
ruckus(config-sys-mgmt-if)# ip addr 192.168.40.4 255.255.255.0
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sys-mgmt-if)#
```

Unleashed-Multi-Site-Manager

To configure UMM settings, use the following command:

Unleashed-Multi-Site-ManagerIP-ADDR NET-MASK interval <NUMBER>

Syntax Description

interval

Configure UMM interval (1~60 minutes).

IP-ADDR

Configure UMM IP address.

NET-MASK

Configure UMM IP address Netmask.

Example

```
ruckus(config-sys)# unleashed-multi-site-manager 172.17.16.1 interval 60
The Unleashed Multi-Site Manager settings have been updated.
ruckus(config-sys)#
```

northbound

To enable northbound portal interface and set the northbound portal interface password, use the following command:

Syntax

northbound password [*WORD*]

Parameters

password

Set the northbound portal interface password

Examples

```
ruckus(config-sys)# northbound password password1234
The northbound portal interface settings have been updated.
ruckus(config-sys)#
```

no northbound

To disable northbound portal authentication, use the following command:

Syntax

no northbound

Command Default

Disabled.

Examples

```
ruckus(config-sys)# no northbound
Northbound portal interface has been disabled.
ruckus(config-sys)#
```

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.
```

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.

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)

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).

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)#
```

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 *trap server address*

Syntax Description

snmp-trap
: Enable SNMP trap notifications

trap server address
: Set the trap server address to this IP address or host name

Example

```
ruckus# config
ruckus(config)# system
ruckus(config-sys)# snmp-trap 192.168.0.3
```

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.
```

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)#
```

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)#
```

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)#
```

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)#
```

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)#
```

master-protect

To configure Unleashed Master AP protection settings, use the following command:

master-protect

Example

```
ruckus(config-sys)# master-protect
ruckus(config-sys-master-protect)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  abort                 Exits the master-protect context without saving changes.
  end                   Saves changes, and then exits the master-protect context.
  exit                  Saves changes, and then exits the master-protect context.
  quit                  Exits the master-protect context without saving changes.
  master-max-sta <NUMBER>
                        Set the max station number in master AP.
  show                  Displays master protection settings.
ruckus(config-sys-master-protect)#
```

cpu-reject-sta

To configure CPU reject value settings for the Master protection, use the following command:

cpu-reject-sta*NUMBER*

Syntax Description

cpu-reject-sta

Configure CPU reject value.

NUMBER

Set the headroom CPU utlization threshold value (0~100).

Defaults

3

Example

```
ruckus(config-sys-master-protect)# cpu-reject-sta 85
The master AP protection settings have been updated.
ruckus(config-sys-master-protect)#
```

master-max-sta

To configure Master max station value for the Master protection, use the following command:

cpu-reject-sta*NUMBER*

Syntax Description

cpu-reject-sta

Configure max APs for Master protection.

NUMBER

Set the max APs (0~100).

Defaults

100

Example

```
ruckus(config-sys-master-protect)# master-max-sta 85
The master AP protection settings have been updated.
ruckus(config-sys-master-protect)#
```

generate-token

To Re-generate unleashed-network unique token, use the following command:

generate-token

Example

```
ruckus(config-sys)# generate-token
new-token: un941849001125134696916979 9
ruckus(config-sys)#
```

show

To display config-sys current settings, use the following command:

show

Example

```
ruckus(config-sys)# show
Country Code:
  Code= United States

Identity:
  Name= Unleashed

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

Bonjour Service:
  Status= Enabled

Telnet Server:
  Status= Disabled

FTP Server:
  Status= Enabled
  Anonynous Status= Disabled

Unleashed Multi-Site Manager:
  Status= Enabled
  Address= 172.17.16.1
  Interval= 60

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

Unleashed Network:
  Token= un941849001125154696916979 9

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)#
```

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

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|wpa2|wpa-mixed|wep-64|wep-128]

Syntax Description

- none: Sets the authentication method to 'open' and encryption method to 'none'.
- wpa2: Sets the authentication method to 'open' and encryption method to 'WPA2'.
- 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)#
```

mac none auth-server

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 wpa2 passphrase alogrithm AES auth-server

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 wpa-mixed passphrase algorithm AES auth-server

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 key key-id auth-server

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 key key-id auth-server

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)# mac wpa2 passphrase passphrase algorithm aes auth-server radius2
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 algorithm AES auth-server

To set the authentication method to '802.1x EAP', encryption method to 'WPA2', and algorithm to 'AES', use the following command:

dot1x wpa2 algorithm 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 none

To set the encryption as none and authentication method to 802.1x-MAC, use the following command:

dot1x-mac none auth-server name *WORD*

Syntax Description

dot1x-mac none
: Set the authentication method to '802.1x-MAC' 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 Ruckus-Auth-01
The command was executed successfully.
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

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

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'.
```

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-policy-group

Use the following command to apply an application denial policy to the WLAN:

apply-policy-group *WORD*

Defaults

None

Example

```
ruckus(config-wlan)# apply-policy-group facebook
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.

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

Configuring Dynamic PSKs

Use the following commands to enable and configure Ruckus Dynamic Pre-Shared Key functionality for the WLAN.

dynamic-psk enable

To enable Dynamic Pre-Shared Keys, use the following command:

dynamic-psk enable

Syntax Description

dynamic-psk enable
Enable Dynamic PSK

Defaults

None.

Example

```
ruckus(config-wlan)# dynamic-psk enable
The DPSK can't be enabled or disabled when the wlan type is not Standard Usage and Encryption method is
not WPA or WPA2 and Authentication method is not open and Zero-IT is not enabled.
ruckus(config-wlan)# zero-it
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-wlan)# dynamic-psk enable
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

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 Settings 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

os-type-allowed all

Allows all OS types to access.

os-type-allowed all

os-type-allowed specify

Specifies OS types access.

os-type-allowed specify

specify-os-type-access

Adds the specify OS type into the role entry.

specify-os-type-access *WORD*

Defaults

None

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)# os-type-allowed specify
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)# specify-os-type-access Windows
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-role)#
```

no specify-os-type-access

Deletes the specify OS type from the role entry.

no specify-os-type-access *WORD*

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)#
```

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)#
```

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 guestpolicy1
The Guest Access entry 'guestpolicy1' has been loaded. To save the Guest Access entry, type end or exit.
ruckus(config-guest-access)# show
Guest Access:
  Name = guestpolicy1
  Onboarding Portal:
    Aspect = Guest pass and ZeroIT
  Authentication:
    Mode = Use guest pass and Social login authentication
  Effective time:
    Countdown-by-issued = false
    Effective Period    = 7 Days
  Title = Welcome to the Guest Access login page.
  Terms of Use:
    Status = Disabled
  Redirection:
    Mode = To the URL that the user intends to visit
  Self Service Registration:
    Status              = Disabled
  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)#
```

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 *WORD WORD*

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*

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 (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

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-adjust-ap-power

To enable the auto adjustment of theAP radio power, which helps optimize radio coverage when radio interference is present, use the following command:

auto-adjust-ap-power

Syntax Description

auto-adjust-ap-power

Enable the auto adjustment of theAP radio power

Defaults

Disabled.

Example

```
ruckus(config-services)# auto-adjust-ap-power
The command was executed successfully.
```

no auto-adjust-ap-power

To disable the auto adjustment of theAP radio power, which helps optimize radio coverage when radio interference is present, use the following command:

no auto-adjust-ap-power

Syntax Description

no auto-adjust-ap-power
Disable the auto adjustment of the AP radio power

Defaults

Disabled.

Example

```
ruckus(config-services)# no auto-adjust-ap-power
The command was executed successfully.
```

auto-adjust-ap-channel

To enable the auto adjustment of theAP radio channel when radio interference is present, use the following command:

auto-adjust-ap-channel

Syntax Description

auto-adjust-ap-channel
Enable the auto adjustment of theAP radio channel

Defaults

None.

Example

```
ruckus(config-services)# auto-adjust-ap-channel
The command was executed successfully.
```

no auto-adjust-ap-channel

To disable the auto adjustment of theAP radio channel when radio interference is present, use the following command:

no auto-adjust-ap-channel

Syntax Description

no auto-adjust-ap-channel
Disable the auto adjustment of theAP radio channel

Defaults

None.

Example

```
ruckus(config-services)# no auto-adjust-ap-channel
The command was executed successfully.
```

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
Configure background scanning interval for the 2.4 GHz radio

radio-5-interval
Configure background scanning interval for theGHz radio

NUMBER
Perform background scan at this interval (in seconds)

Defaults

20 seconds

Example

```
ruckus(config-services)# background-scan radio-2.4-interval 6
The command was executed successfully.
```

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.
```

background-scan low-threshold

To set the min threshold to switch channels for the 2.4 GHz radio, use the following command:

background-scan low-threshold <*NUMBER*>

Syntax Description

background-scan low-threshold
Configure the low threshold for the radio.

NUMBER
Set the minimum threshold value (0~2000).

Defaults

Disabled

Example

```
ruckus(config-services)# background-scan low-threshold 20
The command was executed successfully.
ruckus(config-services)#
```

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)#
```

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

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 example1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# auth-token token1
The command was executed successfully. To save the changes, type 'end' or 'exit'.
ruckus(config-sms-server-twilio)# from-phonenumber 111222333444555
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= example1
    Auth Token= token1
    From PhoneNumber= 111222333444555

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)#
```

sns

To configure Short Notification Service settings and enter the *config-sns* context, use the following command:

sns

Syntax Description

abort	Exits the config-sns context without saving changes.
end	Saves changes, and then exits the config-sns context.

exit	Saves changes, and then exits the config-sns context.
quit	Exits the config-sns context without saving changes.
enable	Enables Short Notification Service.
no enable	Disables Short Notification Service.
show	Shows Short Notification Service settings.

Defaults

Enabled.

Example

```
ruckus(config)# sns
ruckus(config-sns)# enable
ruckus(config-sns)# show
Short Notification Service:
  Status= Enabled

ruckus(config-sns)# end
The Short Notification Service settings have been updated.
Your changes have been saved.
ruckus(config)#
```

Configure Station Rename Commands

Use the following commands to configure the renamed station list.

sta-rename

To create or modify the renamed station list, use the following commands:

Syntax Description

help	Shows available commands
history	Shows a list of previously run commands
no sta	Delete a renamed station
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)# sta-rename
ruckus(config- sta-rename)# sta 6C:AA:B3:00:00:A0 my-iphone
ruckus(config- sta-rename)# end
Your changes have been saved. ruckus(config)# show sta-name Displays sta rename list:
MAC Address= 6C:AA:B3:00:00:A0
    rename= my-iphone


All sta rename number: 1.
ruckus(config)#
```

Configure Favorite Station Commands

Use the following commands to configure the favorite station list.

sta-favorite

To create or modify the favorite station list, use the following commands:

Syntax Description

help	Shows available commands
history	Shows a list of previously run commands
no sta	Delete a favorite station
sta <MAC>	Enable station favorite
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)# sta-favorite
ruckus(config-sta-favorite)# sta aa:aa:aa:aa:aa:aa
ruckus(config-sta-favorite)# end
Your changes have been saved. ruckus(config)# show sta-favorite Displays sta favorite list:
MAC Address= aa:aa:aa:aa:aa:aa

All sta favorite number: 1.
ruckus(config)#
```

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*

Configuring a 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*

Configuring 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)#
```

Configuring a 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)#
```

fencerule

To add or update fence rules, and enter the *config-fencerule* context, use the following command:

fencerule <*ID* >

Syntax Description

show	Show the current edited rule
source-type <TYPE>	Wired or wireless.
device-mac <MAC>	Device MAC.

anchor-ap <MAC>	Anchor AP MAC.
service <Service-Name>	List service names.
fencing-range <RANGE>	Fencing Range: Same AP or 1-Hop AP Neighbors.
description <WORD>	Fencing rule description.
end	Save current rule and quit
quit	Save current rule and quit

Example

```
ruckus(config-bonjourfencing)# fencerule 1
ruckus(config-fencerule)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  show                  Show the current edited rule
  source-type <TYPE>    Wireless or Wired.
  device-mac <MAC>      Device MAC.
  anchor-ap <MAC>       Anchor AP MAC.
  service <Service-Name>
                        List service names.
  fencing-range <RANGE>
                        Fenceing Range: Same AP or 1-Hop AP Neighbors.
  description <WORD>    Fencing rule description.
  end                   Save current rule and quit
  exit                  Save current rule and quit
ruckus(config-fencerule)#
```

upload-debug

To configure upload debug file settings, use the following command:

upload-debug*NUMBER*

Syntax Description

abort	Exits the config-upload-debug context without saving changes.
end	Saves changes, and then exits the config-upload-debug context.
exit	Saves changes, and then exits the config-upload-debug context.
quit	Exits the config-upload-debug context without saving changes.
show	Shows upload debug file settings.
enable	Enables the upload debug file.
proto <tftp or ftp>	Sets the protocal for upload debug file.
host <WORD>	Sets the host for upload debug file.
port <NUMBER>	Sets the port for upload debug file.
ftp-user <WORD>	Sets the FTP username for upload debug file.
ftp-pass <WORD>	Sets the FTP password for upload debug file.

Defaults

Disabled.

Example

```
ruckus(config-upload-debug)#
  help                  Shows available commands.
  history               Shows a list of previously run commands.
  abort                 Exits the config-upload-debug context without saving changes.
  end                   Saves changes, and then exits the config-upload-debug context.
  exit                  Saves changes, and then exits the config-upload-debug context.
  quit                  Exits the config-upload-debug context without saving changes.
  show                  Shows upload debug file settings.
  enable                Enables the upload debug file.
  proto <tftp or ftp>   Sets the protocal for upload debug file.
  host <WORD>           Sets the host for upload debug file.
  port <NUMBER>         Sets the port for upload debug file.
  ftp-user <WORD>       Sets the FTP username for upload debug file.
  ftp-pass <WORD>       Sets the FTP password for upload debug file.
ruckus(config-upload-debug)# enable
ruckus(config-upload-debug)# proto tftp
ruckus(config-upload-debug)# host 192.168.40.11
ruckus(config-upload-debug)# port 443
ruckus(config-upload-debug)# ftp-user user1
ruckus(config-upload-debug)# ftp-pass password1234
ruckus(config-upload-debug)# show
Upload Debug:
  Status= Enabled
  Protocal= TFTP
  Host = 192.168.40.11

ruckus(config-upload-debug)# end
The upload debug file settings have been updated.
Your changes have been saved.
ruckus(config)#
```

no upload-debug

Syntax

no upload-debug

Command Default

Disabled.

Examples

```
ruckus(config)# no upload-debug
The upload debug file settings have been updated.
ruckus(config)#
```

Using Debug Commands

Debug Commands Overview

This section describes the commands that you can use to debug Unleashed 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.

apfw_upgrade

To upgrade the controller's firmware, use the following command:

apfw_upgrade <*protocol*>*://server ip*|*server name/path/image name* [**-f**]

apfw_upgrade OPTIONS

Syntax Description

apfw_upgrade

Upgrade the AP'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)# apfw_upgrade
------------------------------------------------------------------------

Name: apfw_upgrade - AP Firmware Upgrade Tool (Ver.1.2)
Synopsis : apfw_upgrade tftp://<server ip|server name>/<path/image name>
------------------------------------------------------------------------
apfw_upgrade
ruckus(debug)#
```

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.
```

restore

To restore the controller's configuration, use the following command:

restore [**all** | **failover** | **policy**]

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)#
```

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)#
```

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)#
```

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 remote-troubleshooting

Shows remote-troubleshooting status.

show remote-troubleshooting

Syntax Description

show remote-troubleshooting
Display remote troubleshooting status

Defaults

None.

Example

```
ruckus(debug)# show remote-troubleshooting
Ruckus CA troubleshooting is stopped!
The server addr is: None

ruckus(debug)#
```

ps

Displays information about all processes that are running (ps -aux).

ps

Syntax Description

ps

Display a list of all running processes

Defaults

None.

Example

```
ruckus(debug)# ps
  PID PPID USER       VSZ STAT COMMAND
    1     0 ruckus    1200 S    init
    2     1 ruckus       0 SWN  [ksoftirqd/0]
    3     1 ruckus       0 SW   [watchdog/0]
    4     1 ruckus       0 SW<  [events/0]
    5     1 ruckus       0 SW<  [khelper]
    6     1 ruckus       0 SW<  [kthread]
    7     6 ruckus       0 SW<  [kblockd/0]
    8     6 ruckus       0 SW<  [khubd]
    9     6 ruckus       0 SW   [pdflush]
   10     6 ruckus       0 SW   [pdflush]
   12     6 ruckus       0 SW<  [aio/0]
   11     1 ruckus       0 SW   [kswapd0]
   13     1 ruckus       0 SW   [mtdblockd]
   14     6 ruckus       0 SW<  [scsi_eh_0]
   15     6 ruckus       0 SW<  [usb-storage]
   17     6 ruckus       0 SW<  [V54_bodygard/0]
   18     1 ruckus       0 SW   [pktgen/0]
   29     6 ruckus       0 SW<  [reiserfs/0]
  104     1 ruckus     956 S    /usr/sbin/in.tftpd -l -s /etc/airespider-images
  110     1 ruckus     660 S    /bin/wd_feeder
  242     1 ruckus    2572 S    /bin/emf_repo_flashsync monitor 15
  243     1 ruckus     944 S    ttylogd
  246     1 ruckus       0 SW<  [uif-246]
  260     1 ruckus   14492 S    stamgr -d3 -t0
  266   260 ruckus   14492 S    stamgr -d3 -t0
  267   266 ruckus   14492 S <  stamgr -d3 -t0
  268   266 ruckus   14492 S    stamgr -d3 -t0
  269     1 ruckus    2268 S    apmgr
  277   269 ruckus    2268 S    apmgr
  278   277 ruckus    2268 S <  apmgr
  299     1 ruckus   19564 S    emfd
  316   299 ruckus   19564 S    emfd
  317   316 ruckus   19564 S    emfd
  318   316 ruckus   19564 S    emfd
```

```
  322     1 ruckus    1108 S    /usr/sbin/dropbear -e /bin/login.sh -r /etc/air
  328     1 ruckus    1188 S    /bin/sh /bin/login.sh
  329     1 ruckus    1188 S    /bin/sh /bin/tacmon.sh
  331     1 ruckus     676 S    /bin/rhttpd
  332     1 ruckus    1140 S <  /bin/zapd
  333     1 ruckus    1100 S <  /bin/clusterD
  334   328 ruckus     856 S    /bin/login
  335   329 ruckus     680 S    /bin/tacmon -i 30 -r 15
  347     1 ruckus     808 S    /bin/tsyslogd -r -h -n --rotate=7
  368   277 ruckus    2268 S <  apmgr
  369   277 ruckus    2268 S <  apmgr
  572     1 ruckus    1184 S    /sbin/udhcpp -i br0 --pidfile=/var/run/udhcpp.p
  580   316 ruckus   19564 S    emfd
  612   316 ruckus   19564 S    emfd
  616   316 ruckus   19564 S    emfd
  622   316 ruckus   19564 S    emfd
  624   299 ruckus    6132 S <  webs &
  625   316 ruckus   19564 S    emfd
  637   624 ruckus    6132 S    webs &
  638   637 ruckus    6132 S <  webs &
  639   637 ruckus    6132 S <  webs &
  640   637 ruckus    6132 S <  webs &
  641   637 ruckus    6132 S <  webs &
  642   637 ruckus    6132 S    webs &
  655   637 ruckus    6132 S <  webs &
  656   637 ruckus    6132 S <  webs &
20503   316 ruckus   19564 S    emfd
30679     1 ruckus    2672 S    /usr/sbin/vsftpd /etc/vsftpd2.conf
10220   322 ruckus    1184 S    /usr/sbin/dropbear -e /bin/login.sh -r /etc/air
10221 10220 ruckus    1188 S    /bin/sh /bin/login.sh
10222 10221 ruckus     856 S    /bin/login
10223 10222 ruckus    7972 S    ruckus_cli2
10426 10223 ruckus    1188 S    sh -c /bin/ps -aux
10427 10426 ruckus    1188 R    /bin/ps -aux
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)#
```

support_tls1.0

To upgrade the controller's firmware, use the following command:

support_tls1.0

no support_tls1.0

To disable AP core dump collection, use the following command:

no support_tls1.0

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)#
```

Accessing the AP-Mode CLI

Accessing the AP Mode CLI from the Unleashed CLI

To access the AP CLI from the Unleashed Master (controller) CLI, use the following command:

ap-mode

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

Configure LTE Commands

The following CLI commands are provided to GET/SET the 3G/4G/LTE mobile configuration options for Unleashed LTE+Wi-Fi Access Points (Unleashed M510).

To use these CLI commands, you must enter the ap-mode CLI.

get lte

Use the following commands to display current LTE settings:

```
ruckus> en
ruckus# ap-mode
You have all rights in this mode.
ruckus(ap-mode)#
The following CLI commands are supported.
get lte-airplane-mode-state : get lte-airplane-mode-state
        Display LTE airplane mode state
get lte-default-eth-for-wan : get lte-default-eth-for-wan
        Display LTE default ethernet port for wan
get lte-failover-selection : get lte-failover-selection
        Display LTE failover selection info
get lte-gps-probe-interval : get lte-gps-probe-interval
        Display configured GPS probe interval time
get lte-imei : get lte-imei
        Display LTE IMEI info
get lte-internet-host : get lte-internet-host
    Display the remote host details configured for internet availability check
get lte-primary-wan-recovery-time : get lte-primary-wan-recovery-time
        Display primary wan recovery time
get lte-sim-apn : get lte-sim-apn {all|primary|secondary}
        Display LTE sim-apn info
get lte-sim-network-selection : get lte-sim-network-selection {all|primary|secondary}
        Display LTE sim-network-selection status
get lte-sim-password : get lte-sim-password {all|primary|secondary}
        Display LTE sim-password info
get lte-sim-pincode : get lte-sim-pincode {all|primary|secondary}
        Display LTE sim-pincode info
get lte-sim-roaming : get lte-sim-roaming {all|primary|secondary}
        Display LTE sim-roaming status

get lte-sim-selection : get lte-sim-selection
    Display LTE sim-selection info
```

```
get lte-sim-username : get lte-sim-username {all|primary|secondary}
    Display LTE sim-user-name info
get lte-state : get lte-state
    Display LTE state
get lte-statistics : get lte-statistics {all|primary|secondary}
    Display LTE status info
get lte-status : get lte-status
    Display LTE status
```

set lte

Use the following commands to configure LTE settings:

```
set lte-airplane-mode-state : set lte-airplane-mode-state {enable|disable}
    Set LTE airplane mode state
set lte-default-eth-for-wan : set lte-default-eth-for-wan {eth0|eth1}
    Set LTE default ethernet port for wan (It will be overwritten by WEB UI configuration)
set lte-failover-selection : set lte-failover-selection {ethernet-lte|lte-ethernet|ethernet|lte}
    Set LTE failover selection info (It will be overwritten by WEB UI configuration)
        -------------------------------
        ethernet-lte - primary ethernet, failover LTE
        lte-ethernet - primary LTE, failover ethernet
        ethernet - ethernet only
        lte - LTE only
        -------------------------------
set lte-gps-probe-interval : set lte-gps-probe-interval {seconds}
        Set how frequently to probe GPS coordinates
        min - 1 sec, max - 500000 sec
set lte-internet-host : set lte-internet-host {host_index} {status|addr|port} {value}
    Set the host address and TCP port number to confirm the internet availability
            {host_index} = numeric number, valid range = 0 to 4
     {status|addr|port} = specifies the purpose of {value}.
            {value} = {enable|disable} specific host if the previous attribute is 'status' (or)
            URL or IP address of remote host if the previous attribute is 'addr', max. allowed URL address
length = 255 (or)
            TCP port number if the previous attribute is 'port', valid port range = 0 to 65535.
Examples:
-> set lte-internet-host 0 addr www.google.com
   (Set www.google.com in 0'th index)
-> set lte-internet-host 0 port 443
   (Set port number 443 in 0'th index)
-> set lte-internet-host 0 status enable
   (Allow 0'th indexed host to be considered for internet reachability check)
-> set lte-internet-host 0 status disable
   (Don't use 0'th indexed host for internet reachability check)
Note:
The user must ensure the correctness and reliability of host URL/IP before the configuration.

set lte-primary-wan-recovery-time : set lte-primary-wan-recovery-time {seconds}
        Set primary wan recovery time (It will be overwritten by WEB UI configuration)
        min - 10 sec    max - 300 sec
set lte-reset : set lte-reset
    Reset LTE chip
    Note : Issue "set lte-state disable" before executing lte-reset
set lte-sim-apn : set lte-sim-apn {primary|secondary} {APN name} (It will be overwritten by WEB UI
configuration)
    max. allowed characters - 100
    allowed characters - A-Z, a-z, 0-9, (-)
set lte-sim-network-selection : set lte-sim-network-selection {primary|secondary} {lte|3g|auto}
set lte-sim-password : set lte-sim-password {primary|secondary} {Password}
    Omit the {Password} to disable/set to default
set lte-sim-pincode : set lte-sim-pincode {primary|secondary} {pincode}
    Omit the {pincode} to disable/set to default
set lte-sim-roaming : set lte-sim-roaming {primary|secondary} {enable|disable}

set lte-sim-selection : set lte-sim-selection {auto|primary|secondary}
        primary - SIM 0
        secondary - SIM 1
set lte-sim-username : set lte-sim-username {primary|secondary} {User name}
    Omit the {User name} to disable/set to default
```

```
set lte-state : set lte-state {enable|disable}
    Set LTE state
```

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