COMMAND REFERENCE GUIDE

Ruckus SmartZone Virtual SmartZone-Data Plane and SmartZone 100 Data Plane Command Reference Guide, 5.2.1

Supporting SmartZone 5.2.1

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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 Safety Warnings

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

NOTE

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

ATTENTION

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

CAUTION

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

DANGER

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

Command Syntax Conventions

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

Convention	Description
bold text	Identifies command names, keywords, and command options.

Convention	Description
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@commscope.com.

When contacting us, include the following information:

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

For example:

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

RUCKUS Product Documentation Resources

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

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

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

Online Training Resources

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

This Virtual SmartZone-Data Plane (vSZ-D) and SmartZone 100 Data Plane (SZ100-D) Command Reference Guide contains the syntaxes and commands for configuring and managing the vSZ-D/SZ100-D (collectively referred to as “the controller” throughout this guide) from the command line interface.

This guide is written for service operators and system administrators who are responsible for managing, configuring, and troubleshooting Wi-Fi networks. It assumes basic working knowledge of local area networks, wireless networking, and wireless devices.

NOTE
Refer to the release notes shipped with your product to be aware of certain challenges when upgrading to this release.

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/contact-us.

What's new in this Document

No changes in this release.

Terminology

The table lists the terms used in this guide.

TABLE 2 Terms used in this guide

Terminology	Description
ANQP	Access Network Query Protocol
AP	Access Point
CN	Common Name
CP	Captive Portal
CUI	Chargeable User Identity
EAP	Extensible Authentication Protocol
FQDN	Fully Qualified Domain Name
GAS	Generic Advertisement Service
GTPv2-C	Tunneling Protocol for Control Plane
HS2.0	Hotspot 2.0
IDM	Identity Management
MCC	Mobile Country Code
MNC	Mobile Network Code

TABLE 2 Terms used in this guide (continued)

Terminology	Description
MNO	Mobile Network Operator
MO	Managed Object
MSO	Multiple System Operator
NBI	Northbound Interface
OCSP	Online Certificate Status Protocol
OI	Organization Identifier
OMA-DM	Open Mobile Alliance's Device Management
OSEN	OSU Server-only authenticated Layer 2 Encryption Network
OSU	Online Sign-Up
Passpoint	Hotspot 2.0 certification
PKI	Public Key Infrastructure
PPS-MO	Per Provider Subscription Management Object
RAC	Radio Access Controller
RADIUS	Remote Access Dial In User Service
Release1 Device	Hotspot 2.0 Release1 specification compliant device
Release 2 Device	Hotspot 2.0 Release 2 compliant device
RSN	Robust Security Network
SCG	Smart Cell Gateway
SSID	Service Set Identifier
SSL	Secure Socket Layer
T&C	Terms and Conditions
TCP	Transmission Control Protocol
TLS	Transport Layer Security
TTLS	Tunneled TLS
UDI	User Define Interface
UE	User Equipment
UE-IP	User Equipment - IP Address
UE-MAC	User Equipment - MAC Address
UI	User Interface
URI	Uniform Resource Identifier
USIM	Universal Subscriber Identity Module
UTP	User Traffic Profile
UUID	Universal Unique Identifier
VSA	Vendor Specific Attribute
WAN	Wide Area Network
WFA	Wi-Fi Alliance
WLAN	Wireless Local Area Network

Introduction to the Command Line Interface

Overview of the Command Line Interface

The Command Line Interface (CLI) is a software tool that enables you to configure and manage the controller (vSZ-D/SZ100-D).

Using the command line interface, you can issue commands from an operating system prompt, such as the Microsoft Windows command prompt or a Linux operating system terminal. 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

The controllers has a built-in command line interface (CLI) that you can use to configure settings and manage access points. This section describes the requirements and the procedure for accessing the controller CLI.

What You Will Need

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

1. A computer that you want to designate as administrative computer
2. A network connection to the controller (if you want to use an SSH connection)
3. An SSH (secure shell) client

Start and Configure the SSH Client

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

> **NOTE**
> The following procedure describes how to use PuTTY, a free and open source telnet/SSH client, to access the controller CLI. If you are using a different 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.

See the following sections depending on your connection method:

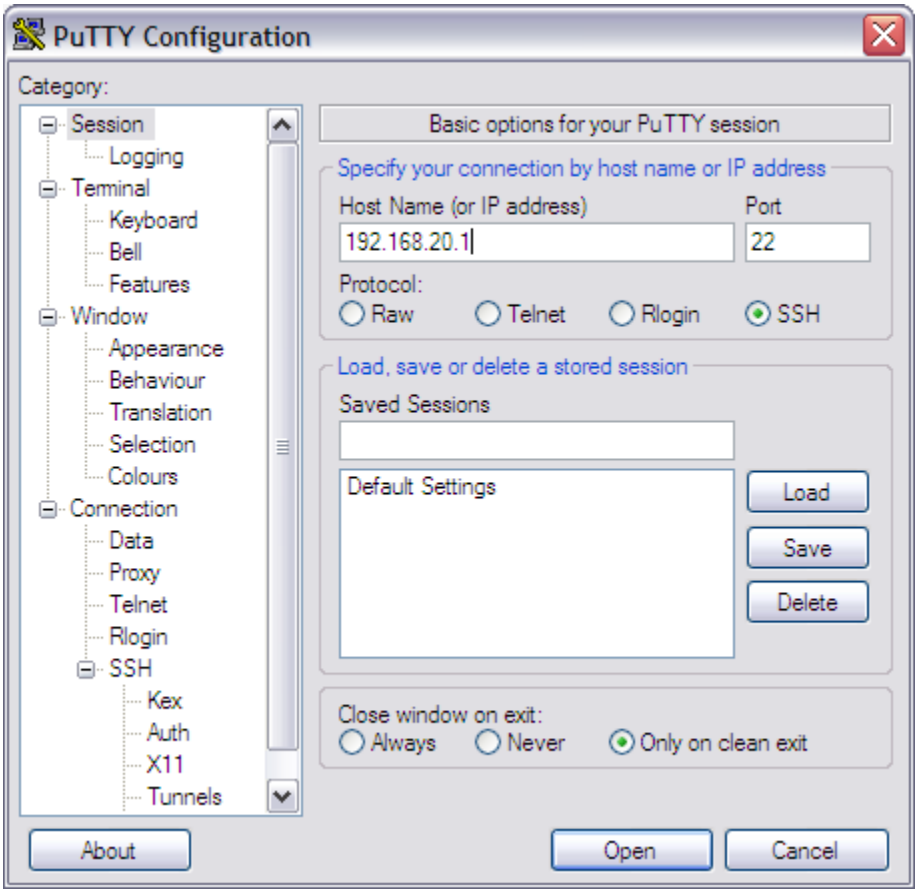
- Using SSH Connection
- Using Console Connection

Using SSH Connection

If you have connected the administrative computer to the same subnet or broadcast domain as the management interface of controller, follow these steps to start and configure the SSH client.

1. Start PuTTY. The *PuTTY configuration* dialog box appears, showing the *Session* screen as seen in Figure 1.
2. In *Connection* type, select SSH.

FIGURE 1 Selecting SSH as a connection type



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

Using the Console Connection for vSZ-D

With the vSphere Web Client, you can access a virtual machine's desktop by launching a console to the virtual machine. From the console, you can perform activities within the virtual machine such as configure operating system settings, run applications, and monitor performance. The prerequisites are as follows:

- Ensure that the Client Integration Plug-in is installed in your Web browser.
- Verify that the virtual machine has a guest operating system and that VMware Tools are installed.
- Verify that the virtual machine is powered on.

The procedure is as follows:

1. Select a virtual machine.
   - In the virtual machines and templates inventory tree, select a group of virtual machines and select a virtual machine from the list on the right.
   - Search for a virtual machine and select it from the search results list.
2. In the **Guest OS Details** pane on the **Summary** tab, click **Launch console**.The virtual machine console opens in a new tab of the Web browser.
3. Click anywhere inside the console window to enable your mouse, keyboard, and other input devices to work in the console.
4. (Optional) Press **Ctrl+Alt** to release the cursor from the console window and work outside the console window.
5. (Optional) Click **Full Screen** to display the console in full screen mode.
6. (Optional) Press **Ctrl+Alt+Enter** to exit full screen mode.
7. (Optional) Click Send **Ctrl-Alt-Delete** to send a Ctrl+Alt+Delete to the guest operating system.

Using the Console Connection for SZ100-D

Perform the following steps to connect console to SZ100-D and complete the setup.

1. Connect the SZ100-D to a convenient power source, and then press the power switch on the rear panel.

   The Alarm LED shows a flashing red light as the SZ100-D starts up. When the SZ100-D has started up successfully, the Alarm LED turns to a solid green light.
2. Connect the administrative computer to the console port on the data plane using an RS-232 serial to RJ45 cable.
3. Start PuTTY. The **PuTTY Configuration** dialog box displays the Session screen.
4. In **Connection Type**, select **Serial** if you are connecting via serial cable.
5. Configure the serial connection settings as follows:
   a. **Serial line to connect to** - type the COM port name to which you connected the RS-232 cable.
   b. **Bits per second** - 115200
   c. **Data bits** - 8
   d. **Stop bits** - 1
   e. **Parity** - none
   f. **Flow Control** - none
6. Click **Open**. The PuTTY console displays the login prompt.

Log On to CLI

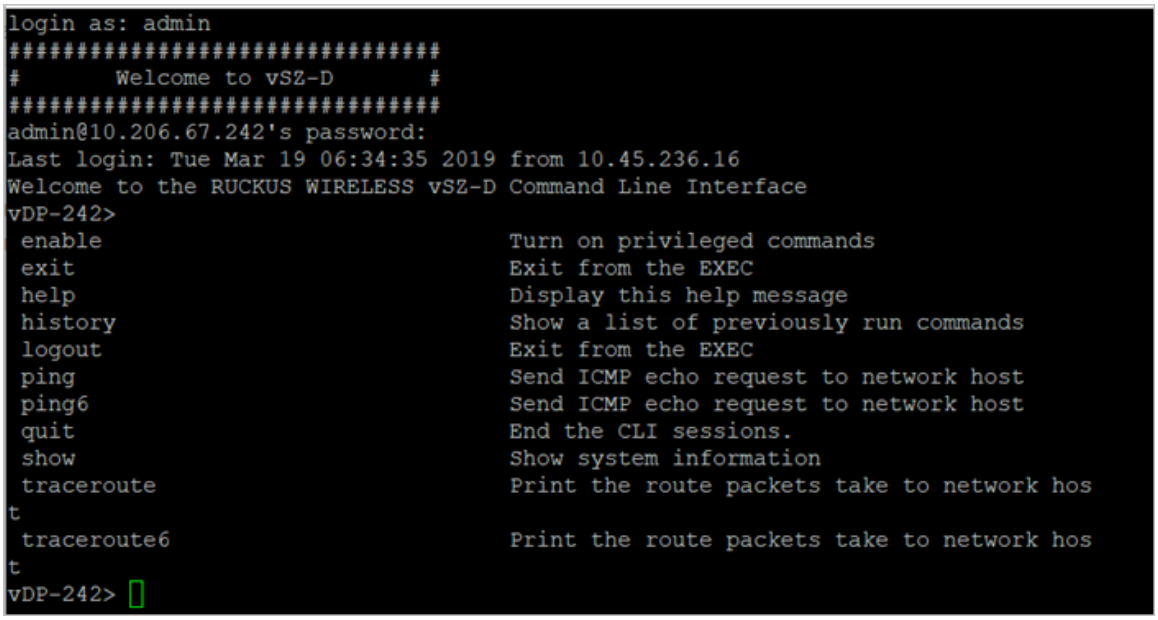
The process to log on to the CLI is as follows:

- Log on to the controller using putty/Xssh (any other application) using the user credentials of login name and password as given. These credentials are the administrator username and password from vSZ once the data plane is managed. During initial installation these credentials are admin/admin.

  NOTE
  You cannot use 'admin' as a password, which is used during the controller installation procedure.

- Controller CLI welcome message appears with the CLI prompt as seen below.

  FIGURE 2 Welcome to controller

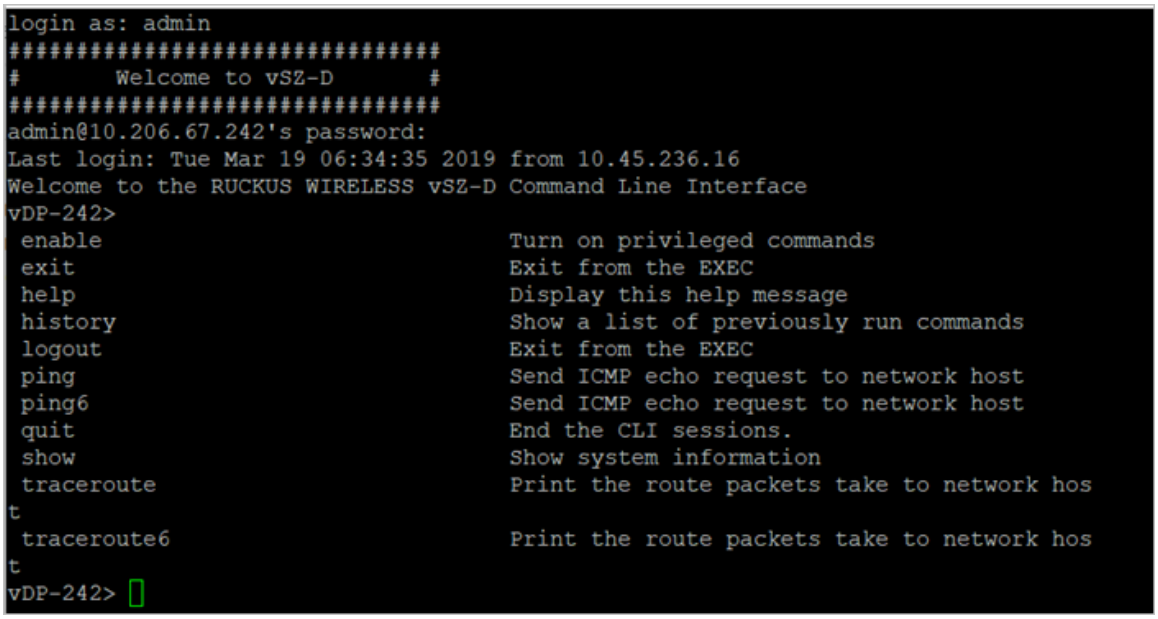


- You are now logged into the controller CLI as a user with limited privileges by looking at the CLI prompt. If you are in limited mode, the prompt appears as *ruckus*> (with a greater than sign). To view a list of commands that are available at the root level or user mode, enter help or ?.

  NOTE
  To change the CLI prompt to a privileged mode, see Figure 5.

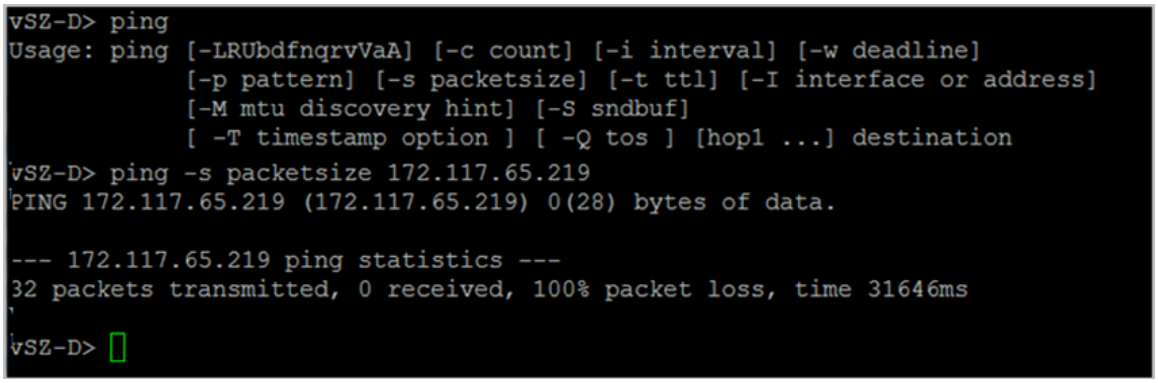
  As a user with limited privileges, you can view a the version by using the show command. See the below screen.

FIGURE 3 Using the initial mode command



- As a user with limited privileges, you can view a history of commands that were previously executed and ping a device as seen in Figure 4.

FIGURE 4 Using the Ping command



- If you want to run more commands, you need to switch to privileged mode by entering enable and the password at the root prompt as seen in Figure 5. The prompt changes from ruckus> to ruckus# (with a pound sign). Refer to the enable on page 21 command for details.

FIGURE 5 Changing to Privileged mode

User mode overview

Logging in to the CLI places you in user EXEC command mode. Typically, login requires a user name and a password. You may try three times to enter a password before the connection attempt is refused.

User mode is one of two access levels of the EXEC mode. For security purposes, only a limited subset of EXEC commands are available in user EXEC mode. This level of access is reserved for tasks that do not change the configuration. To list the commands available in user EXEC mode, use the **?** command at the prompt. The user EXEC mode prompt consists of the host name of the device followed by an angle bracket (>), as shown in the example.

```
ruckus> ?
```

Privileged mode overview

To access to all commands, you must enter Privileged EXEC mode, which is the second level of access for the EXEC mode. You must enter a password to enter Privileged EXEC mode.

Most EXEC mode commands are one-time commands, such as show commands. EXEC mode commands are not saved across reboots of the controller. To list the commands available in privileged EXEC mode, use the **?** command at the prompt.

```
ruckus# ?
```

From the privileged mode, you can enter configuration mode to enter commands that configure general system characteristics. Configuration mode allows you to make changes to the running configuration. If you later save the configuration, these commands are stored across reboots. Notice that the system prompt changes to indicate that you are in configuration mode. The prompt for configuration mode consists of the device name, configuration and followed by the pound sign.

```
ruckus# config
ruckus(config)#
```

To list and see a brief description of all the configuration commands, use the **?** command at the prompt.

```
ruckus(config)# ?
```

Privileged mode also provides testing commands, such as **debug**. Debug set of commands allows you to diagnose and troubleshoot specific problems. To list and see a brief description of all the debugging command options, use the **?** command at the prompt.

```
ruckus# debug
ruckus(debug)# ?
```

Configuration commands overview

Configuration commands allow you configure, enable, and disable various controller components. 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 ?

Debug commands overview

Debugging commands can be used to debug the controller, connect to the controller, and configure client and 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 ?

System commands overview

System commands can be used to configure administrative and system settings on the controller.

Many of these commands can be used for other purposes, such as backup or debugging.

User Mode Commands

enable

Turns on privileged commands.

```
ruckus> enable
```

Syntax Description

This command uses the following syntax:

```
password: Password to change the mode
```

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> enable
ruckus> password
ruckus#
ruckus# config
ruckus(config)#
```

exit

Exits from the EXEC mode.

```
ruckus> exit
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> exit
```

help

Displays the help messages.

```
ruckus> help
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> help
```

history

Displays a list of previously run commands.

```
ruckus> history
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> history
```

logout

Exits from the controller (vSZ-D/SZ100-D) CLI application.

```
ruckus> logout
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> logout
```

ping

Sends ICMP echo packets to an IP address based on the IP version or domain name.

```
ruckus# or ruckus>ping[- LRUbdfnqrvVaA]
    [-c count][-i interval][-w deadline][-p pattern]
    [- s packetsize][-t ttl][-I interface or address]
    [- M mtu discovery hint][- S sndbuf][ -T timestamp option ]
    [ -Q tos ] [hop1 ...] destination
```

Syntax Description

This command has the following syntax:

- count
- interval
- deadline
- pattern
- packetsize
- ttl
- interface or address
- mtu discovery hint
- sndbuf
- timestamp option
- destination

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> ping
```

ping6

Sends ICMP echo packets to an IPv6 address or domain name.

```
ruckus> ping6[- LRUbdfnqrvVaA]
    [-c count][-i interval][-w deadline][-p pattern]
    [- s packetsize][-t ttl][-I interface or address]
    [- M mtu discovery hint][- S sndbuf][-F flow label]
     [-Q traffic class] [hop1 ...] destination
```

Syntax Description

This command has the following syntax:

- count
- interval
- deadline
- pattern
- packetsize
- ttl
- interface or address
- mtu discovery hint
- sndbuf
- flow label
- traffic class
- destination

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus> ping 6
```

quit

Ends the CLI sessions.

```
ruckus> quit
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus>quit
```

show

Displays system information.

ruckus> show[**ue-nat-session** | **version**

Syntax Description

This command uses the following syntax:

ue-nat-session

Sets the datacore filter for the Nat server

version

Displays the system options and settings

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus>show version
Model : vSZ-D
Serial Number : 9xxxxxxxxxxxx
vSZ-D Version : 5.1.1.0.466
```

Shows the system model, serial and version number.

traceroute

Prints the route that the packets takes to the network host.

```
ruckus# or ruckus>traceroute[ -46dFITnreAUV ][ -f first_ttl ][ -g gate,... ] [ -i device ]
    [ -m max_ttl ] [ -N squeries ] [ -p port ] [ -t tos ] [ -l flow_label ][ -w waittime ]
    [ -q nqueries ][ -s src_addr ] [ -z sendwait ] host [ packetlen ]
```

Syntax Description

This command has the following syntax:

- first_ttl
- gate
- device
- max_ttl
- squeries
- port
- tos
- flow_label
- waittime
- nqueries
- src_address
- sendwait
- packetlen

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus>traceroute
```

traceroute6

Prints the route that the packets take to the network host.

```
ruckus> traceroute6[ -46dFITnreAUV ][ -f first_ttl ][ -g gate,... ] [ -i device ] [ -m
    max_ttl ] [ -N squeries ] [ -p port ] [ -t tos ] [ -l flow_label ][ -w waittime ] [ -q
    nqueries ][ -s src_addr ] [ -z sendwait ] host [ packetlen ]
```

Syntax Description

This command has the following syntax:

- first_ttl
- gate
- device
- max_ttl
- squeries
- port
- tos
- flow_label
- waittime
- nqueries
- src_address
- sendwait
- packetlen

Default

This command has no default settings.

Command Mode

config

Example

```
ruckus> traceroute6 indus-ap
```

Configuration Commands

ruckus# config

Configure options and settings in this mode.

```
ruckus# config
ruckus(config)#
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
```

ruckus# config

```
ruckus(config)#.....
```

ruckus(config)# admin

Enter the admin mode to configure admin settings.

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

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# admin
ruckus(config-admin)#..
```

Related Commands

Command	Description	Command and Example
end	Saves changes, and exits the config-admin context.	ruckus(config-admin)# end
exit	Exits the config-admin context without saving changes	ruckus(config-admin)# exit
help	Displays the help message	ruckus(config-admin)# help
history	Shows a list of previously run commands	ruckus(config-admin)# history 0. en 1. config 2. admin
logout	Exits from the EXEC	ruckus(config-admin)# logout
name	Sets the hostname.	ruckus(config-admin)# name <new-hostname>

Command	Description	Command and Example
passwd	Sets the *local account* admin password.	ruckus(config-admin)# passwd Changing password for user admin. New password: vSZ-D is handled by vSZ and change password must be through vSZ. After 5.1.2 vSZ-D cannot change the login password after it is managed by controller.
show	Displays the administrative settings such as host name and idle timeout.	ruckus(config-admin)# show ADMIN Settings: vSZ-D HostName: vSZ-D vSZ-D Idle Timeout: 10 (minutes)
timeout	Sets the CLI timeout value in minutes.	ruckus(config-admin)# timeout <value>

ruckus(config)# calea

To configure CALEA server settings.

```
ruckus(config)# calea
ruckus(config-calea)#
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# calea
ruckus(config-calea)#..
```

Related Commands

Command	Description	Command and Example
end	Saves changes, and informs the data core to read the configuration file.	ruckus(config-calea)# end
exit	Exits without informing the data core.	ruckus(config-calea)# exit
help	Displays the help message	ruckus(config-calea)# help
history	Shows a list of previously run commands	ruckus(config-calea)# history Command history: 0. en 1. config 2. calea
logout	Exits from the EXEC	ruckus(config-calea)# logout
mac	Sets the MAC address as *mac <xx:xx:xx:xx:xx:xx> ~[xx:xx:xx:xx:xx:xx]*	ruckus(config-calea)# mac
no	Disable the specified MAC address or all the MAC addresses.	ruckus(config-calea)# no <mac < all | xx:xx:xx:xx:xx:xx>>

Command	Description	Command and Example
show	Shows the CALEA global configuration and the server details.	ruckus(config-calea)# show summary ##========== ======== >> CALEA UE MAC Table: 0 entries (in ascending order) calea_license='enabled' global_enable='FALSE' pow0_IP=10.10.7.218 datacenterIP=0.0.0.0 calea_server=0.0.0.0 vlan=0, tid=0 total_calea_pkts=0, sent_err=0 >> Total: 0 CALEA_MAC entries displayed(ascending)

ruckus(config)# controller

Configures the virtual data plane settings.

```
ruckus(config)# controller
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# controller
ruckus(config-controller)#
```

Related Commands

Command	Description	Command and Example
end	Saves and exits.	ruckus(config-controller)# end
exit	Exits without saving changes.	ruckus(config-controller)# exit
help	Displays the help message.	ruckus(config-controller)# help
history	Shows a list of previously run commands.	ruckus(config-controller)# history
ip	Sets the vSZ IP address.	ruckus(config-controller)# ip address
logout	Exits from the execute mode.	ruckus(config-controller)# logout
no	Disables the verification of the vSZ certificate chain.	ruckus(config-controller)# no
set_cert_chain	Sets the vSZ certificate chain.	ruckus(config-controller)# set_cert_chain
verify_cert_chain	Verifies the vSZ certificate chain by the controller.	ruckus(config-controller)# verify_cert_chain

ruckus(config)# dhcp

Use the **dhcp** command to create or set the Dynamic Host Configuration (DHCP) server configuration setting.

```
ruckus(config)# dhcp
ruckus(config-dhcp)#
```

Syntax Description

This command has no arguments or keywords

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# dhcp
ruckus(config-dhcp)#..
```

Related Commands for DHCP and DHCP Pool

Command	Description	Command and Example
dhcp-log-syslog	Sends the DHCP events to the Syslog server. The value must be in the range 1 to 7.	ruckus(config-dhcp)# dhcp-log-syslog level <value> Example: vSZ-D(config-dhcp)# dhcp-log-syslog level 7 dhcp syslog level 7 is set
end	Saves changes, and informs the data core to read the configuration file.	ruckus(config-dhcp)# end
exit	Exits without informing the data core.	ruckus(config-dhcp)# exit
help	Displays the help message	ruckus(config-dhcp)# help
history	Shows a list of previously run commands	ruckus(config-dhcp)# history
logout	Exits from the EXEC	ruckus(config-dhcp)# logout
show	Shows the DHCP or DHCP pool configuration .	ruckus(config-dhcp)# show [|summary | stats] ruckus(config-dhcp)# show only - Gets the global configuration and dhcp conf configuration Example: ruckus(config-dhcp)# show summary

ruckus(config)# dpm

Configures data plane manager (dpm) settings.

```
ruckus(config)# dpm
ruckus(config-dpm)#
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# dpm
ruckus(config-dpm)#
```

Related Commands

Command	Description	Command and Example
end	Saves changes, and exits the DPM configuration.	ruckus(config-dpm)# end
exit	Exits the DPM configuration without saving changes.	ruckus(config-dpm)# exit
hb-intvl	Sets the DPM heartbeat interval. The heartbeat interval is between 10 and 255 (seconds)	ruckus(config-dpm)# hb-intvl <value> ruckus(config-dpm)# hb-intvl 30
help	Displays the help message.	ruckus(config-dpm)# help
history	Shows a list of previously run commands.	ruckus(config-dpm)# history
logout	Exits from the EXEC.	ruckus(config-dpm)# logout

ruckus(config)# end

Saves the changes and exits from the configuration mode.

```
ruckus(config)# end
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# end
```

ruckus(config)# exit

Exits from the configuration mode without saving the changes.

```
ruckus(config)# exit
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# exit
```

ruckus(config)# help

Displays the help messages.

```
ruckus(config)# help
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# help
```

ruckus(config)# history

Displays a list of previously run commands.

```
ruckus(config)# history
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# history
```

Command history:

0. en

1. config

2. dpm pd

3. exit

4. history

ruckus(config)# interface management

Configure management interface.

```
ruckus(config)# interface management
ruckus(config-interface)#
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# interface management
ruckus(config-interface)#
```

Related Commands

Command	Description	Command and Exm
end	Saves changes, and exits the management context.	ruckus(config-interface)# end
exit	Exits the management without saving changes.	ruckus(config-interface)# exit
help	Displays the help message.	ruckus(config-interface)# help
history	Shows a list of previously run commands.	ruckus(config-interface)# history
ip	Sets the management interface setting.	ruckus(config-interface)# ip < address | ipv6_address > address < dhcp | ip netmask gateway>. You can set to three IP addresses ipv6-address < auto | ip/preflen gateway>. You can set to twp IPv6 addresses.
logout	Exits from the EXEC.	ruckus(config-interface)# logout
no	Removes VLAN identfier from the management interface.	ruckus(config-interface)# no vlan
show	Shows the current interface setup or all the JSON files.	ruckus(config-interface)# show
vlan	Sets the VLAN identifier for interface.	ruckus(config-interface)# vlan <id>

ruckus(config)# interface data

Configure data interface settings.

```
ruckus(config)# interface data
ruckus(config-interface)#
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# interface data
ruckus(config-interface)#
```

Related Commands

Command	Description	Command and Exm
end	Saves changes, and exits the management context.	ruckus(config-interface)# end
exit	Exits the management without saving changes.	ruckus(config-interface)# exit
help	Displays the help message.	ruckus(config-interface)# help
history	Shows a list of previously run commands.	ruckus(config-interface)# history
ip	Sets the management interface setting.	ruckus(config-interface)# ip < address | ipv6_address > address < dhcp | ip netmask gateway>. You can set to three IP addresses ipv6-address < auto | ip/preflen gateway>. You can set to twp IPv6 addresses.
logout	Exits from the EXEC.	ruckus(config-interface)# logout
no	Removes VLAN identfier from the management interface.	ruckus(config-interface)# no vlan
show	Shows the current interface setup or all the JSON files.	ruckus(config-interface)# show
vlan	Sets the VLAN identifier for interface.	ruckus(config-interface)# vlan <id>

ruckus(config)# interface access-core-separate

Sets the access core separate core interface.

```
ruckus(config)# interface access-core-separate
        ruckus(config-core-separate)#
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

config

Example

```
ruckus> enable
        ruckus# config
        ruckus(config)# interface access-core-separate
        ruckus(config-core-separate)#
```

Related Commands

Command	Description	Command and Example
disable	Disables access core separate.	ruckus(config-core-separate)# end
end	Saves changes and exits the access core interface.	ruckus(config-core-separate)# end
exit	Exits without saving the changes.	ruckus(config-core-separate)# exit
help	Displays the help message.	ruckus(config-core-separate)# help
history	Shows a list of previously run commands.	ruckus(config-core-separate)# history
ip	Sets the IPv4 or IPv6 address for the interface.	ruckus(config-core-separate)# ip < address | ipv6_address > address < dhcp | ip netmask gateway>. You can set to three IP addresses ipv6-address < auto | ip/preflen gateway>. You can set to twp IPv6 addresses
logout	Exits from the EXEC.	ruckus(config-core-separate)# logout
no	Removes VLAN identfier of the interface.	ruckus(config-core-separate)# no vlan
show	Shows the current interface setup or all the JSON files.	ruckus(config-core-separate)# show

Command	Description	Command and Example
vlan	Sets the VLAN identifier for interface.	ruckus(config-core-separate)# vlan <id>

ruckus(config)# ip data-nat

Sets the external NAT IP address of the data interface.

```
ruckus(config)# ip data-nat <address> <port>
```

Syntax Description

This command uses the following syntax:

address: IP address to set the external NAT server

port: NAT server port number

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# ip data-nat <address> <port>
ruckus(config)# ip data-nat 172.172.18.9 80
```

The command was executed successfully. To save the changes, type 'end'.

ruckus(config)# ip name-server

Sets the name server.

`ruckus(config)#` **ip name-server <pri-addr> <sec-addr>**

Syntax Description

This command has the following syntax.

pri-addr: Primary address for the NAT server

sec-addr: Secondary address for the NAT server

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# ip name-server <pri-addr> <sec-addr>
ruckus(config)# ip name-server 172.172.19.8
```

The command was executed successfully.

ruckus(config)# logout

Exits from the controller CLI application.

```
ruckus(config)# logout
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)# logout
```

ruckus(config)# nat

Configure the NAT server settings.

```
ruckus(config)# nat
ruckus(config-nat)#
```

Syntax Description

This command has no arguments or keywords

Default

This command has no default settings.

Command Mode

config

Example

```
ruckus> enable
ruckus# config
ruckus(config)# nat
ruckus(config-nat)#..
```

Related Commands

Command	Description	Command and Example
end	Saves changes, and informs the data core to read the configuration file.	ruckus(config-nat)# end
exit	Exits without informing the data core.	ruckus(config-nat)# exit
help	Displays the help message	ruckus(config-nat)# help
history	Shows a list of previously run commands	ruckus(config-nat)# history
logout	Exits from the EXEC	ruckus(config-nat)# logout
nat-log-syslog		ruckus(config-nat)# nat-log-syslog level < value > # value must in range 1~7 Example: ruckus(config-nat)# nat-log-syslog level 6 NAT syslog level 6 Nat syslog level 6 has set
no	Disable the default route settings or the public IP settings.	ruckus(config-nat)# no set filter, Removes all the NAT filter ruckus(config-nat)# no set filter

Command	Description	Command and Example
set	Sets the filter	ruckus(config-nat)# set filter <private-ip | private-port | pub lic-ip | public-port | ue-mac>
show	Shows the summary of the NAT server configuration or the IP address or the filter status of the NAT server .	ruckus(config-nat)# show [|summary|public-ip| filter|stats] • Stats - Shows the NAT service stats • Summary - Shows the NAT summary • Public-IP - Shows the NAT public IP address • Filter - Shows the NAT filter ruckus(config-nat)# show public-ip NAT public IPs: gbl(rawIP='disabled' wlan='disabled' vpn='disabled') cfg_in_progress=0, cfg_file_found=1 MAC(local)= 00:0C:29:45:85:BE NAT public IPs: gbl(rawIP='disabled' wlan='disabled' vpn='disabled') cfg_in_progress=0, cfg_file_found=0 MAC(local)= 00:0C:29:D3:3B:B8 >non-profiled: 0 total (In-Use) >profile-based: 0 total (Not-In_Use) non-profile-based public IPs: profile-based public IPs: non-profiled: 0 total (In-Use) profile-based: 0 total (Not-In_Use)

ruckus(config)# no

Disables the external NAT server configuration from the data interface.

`ruckus(config)# no` **ip-data-nat**

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

`ruckus(config)# no` **ip-data-nat**

The command was executed successfully. To save the changes, type 'end'.

ruckus(config)# syslog

Use the **syslog** command to configure the device to use the Syslog server.

```
ruckus(config)# syslog
ruckus(config-syslog)#
```

Syntax Description

This command has no arguments or keywords

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)# syslog
ruckus(config-syslog)#..
```

Related Commands for Syslog

Command	Description	Command and Example
dhcp	Enable or disable forward DHCP messages to the Syslog server	ruckus(config-syslog)# dhcp enable
end	Save changes and exits the syslog context	ruckus(config-syslog)# end
exit	Exits the syslog context.	ruckus(config-syslog)# exit
help	Displays the help message	ruckus(config-syslog)# help
history	Shows a list of previously run commands	ruckus(config-syslog)# history
logout	Exits from the EXEC	ruckus(config-syslog)# logout
nat	Enable or disable forward NAT messages to the Syslog server	ruckus(config-syslog)# nat enable
show	Shows the Syslog server configuration information	ruckus(config-syslog)# show syslog server ip: 172.17.65.23 syslog server port: 1234
syslog-server	Sets the syslog server information	ruckus(config-syslog)# syslog-server <ip> <port>

ruckus(config)# vpn

Configure the VPN settings.

```
ruckus(config)# vpn
ruckus(config-vpn)#
```

Syntax Description

This command has no arguments or keywords

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
        ruckus# config
        ruckus(config)# vpn
        ruckus(config-vpn)#..
```

Related Commands

Command	Description	Command and Example
end	Saves changes, and informs the data core to read the configuration file.	ruckus(config-vpn)# end
exit	Exits without informing the data core.	ruckus(config-vpn)# exit
help	Displays the help message	ruckus(config-vpn)# help
history	Shows a list of previously run commands	ruckus(config-vpn)# history
logout	Exits from the EXEC	ruckus(config-vpn)# logout
no	Disable the site IP address.	ruckus(config-vpn)# no site-ip <d.d.d.d> [server_ip <d.d.d.d/dd>] [ue_ip <d.d.d.d/dd>] [ue_vlan <id>]

Command	Description	Command and Example
show	Shows the VPN settings.	ruckus (config-vpn)# show [stats|summary|all|sites] ruckus (config-nat-global)# show number_sites : 2 vpngre_site[0]{ site ip : 10.10.7.219 site_is_dc : no site_crypto : disable } vpngre_site[1]{ site ip : 10.10.7.218 site_is_dc : no site_crypto : disable
site	Sets the site IP address.	ruckus (config-vpn)# site site-ip <d.d.d.d> [server_ip <d.d.d.d/dd>] [ue_ip <d.d.d.d/dd>] [ue_vlan <id>] [site_vlan <id>] [udp <port>] [site_DC <yse|no>] [calea_server <d.d.d.d>] [crypto <enable|disable>] [keys psk <bit_len> <8-byte hex value> * at most 4] [keys iv <byte_len> <8-byte hex value> <8-byte hex value>]
ue-ip-filter	Sets the user enabled IP filter to either enable or disable mode.	ruckus (config-vpn)# ue-ip-filter <enable|disable>

Debug Commands

ruckus# debug

Manages system debug options.

```
ruckus# debug
ruckus(debug)#
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# debug
        ruckus(debug)# save-log
```

ruckus(debug)# diag

Diagnostic with internal CLI.

```
ruckus(debug)# diag <command>
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# debug
ruckus(debug)# diag dp_comm help
```

Related Commands

Command	Description	Command and Example
dp_comm	Datacore command and help	ruckus(debug)# diag dp_comm <dp_comm > Sends command to server. <dp_comm help> Lists all the command supported by data plane.
dpminfo	Shows the data plane details.	ruckus(debug)# diag dpminfo <parameter> Usage: /usr/bin/dpminfo **NOTE** The below parameter is a single line. {conn-cp|db-state|shmem-show| log-lvl|log-comp|log-dst| cplane|server|trigger}

Command	Description	Command and Example
tunnelmgr_cli	Tunnel manager set of commands	ruckus(debug)# diag tunnelmgr_cli <parameter> Usage: tunnelmgr_cli [-v -V] {-a | -c | {-s all|<tun_id>|global} | {-t <secs>} | {-r <secs>}} -a - Adds a tunnel table entry -c - Clears all tunnel tables information -s all|global|<tun_id> - Shows information for all valid entries, for specified tunnel entry, or for global data -t <secs> - Sets garbage collection timeout interval (seconds) -k <secs> - Sets cleanup interval based on heartbeat interval (seconds) -l <0~7> - Sets log level of tunnelmgr -r <secs> - Calculates average RX/TX bit/pkt rates within the seconds you sepcify -v - Verbose, shows more information -V - Very verbose, shows all details
cfgfwd		ruckus(debug)# diag cfgfwd <parameter> Usage: **NOTE** The below parameter is a single line. cfgfwd <idx> add type [l2gre|l3gre|TTG|BRIDGE|ADV |L2QINQ|L3QINQ] gre_ip <server IP> ac_vlan_map <vmap> ac_vlan_opt {NO|SINGLE|DOUBLE} co_vlan_opt {NO|SINGLE|DOUBLE} [def_vlan <vid> def_cvlan <vid> def_svlan <vid>] ip1 <DHCP server1> [ip2 <DHCP server2>] [dptun <IP>] [dpmask <IP>] [relay {1|0}] [tunnel {1|0}] [keepalive {1|0}] [ka_int <interval>] [ka_retry <times>] [automtu {1|0}] [mtu <mtu_size>] [pdgtmo <tmo>]
tbldump		ruckus(debug)# diag tbldump <dpmsock> <dpmserver> <dpmdump> Usage: tbldump -t <string> tbldump -n <num>
cfgwlan		ruckus(debug)# diag cfgwlan Usage: cfgwlan <idx> add [fwd_idx <idx> ntp_idx <idx> dscp_idx <idx>] cfgwlan <idx> del cfgwlan {<idx>|all} show
dpm		ruckus(debug)# diag dpm

Command	Description	Command and Example
cfg3rdwlan		ruckus(debug)# diag cfg3rdwlan

ruckus(debug)# dp-packet-capture

Enables or disables the data plane packet capture.

```
ruckus(debug)# dp-packet-capture <enable | diable | save>
```

Syntax Description

This command uses the following syntax: name:

enable - Enables data plane packet capture.

disable - Disables data plane packet capture.

save - Saves captured packets.

Default

This command has no default settings.

Command Mode

Debug

Example

```
ruckus> enable
        ruckus# debug
        ruckus(debug)# dp-packet-capture enable
```

ruckus(debug)# end

Ends the current debug session and returns to privileged mode.

```
ruckus(debug)# end
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
        ruckus# debug
        ruckus(debug)# end
```

ruckus(debug)# exit

Exits the debug context.

```
ruckus(debug)# exit
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# debug
ruckus(debug)# exit
```

ruckus(debug)# help

Displays the help messages.

```
ruckus(debug)# help
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# debug
ruckus(debug)# help
```

ruckus(debug)# history

Displays a list of previously run commands.

```
ruckus(debug)# history
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# debug
ruckus(debug)# history
```

ruckus(debug)# kdump

Enables or disable KDUMP on the controller.

```
ruckus(debug)# kdump <enable | disable>
ruckus(debug)# kdump get <ftp/sftp>, <ip-addr>
```

Syntax Description

This command uses the following syntax: name:

enable - Enable KDUMP

disable - Disables KDUMP

ftp/sftp - Path on the server. Specify the user name and password if you are using FTP or SFTP server.

ip-addr - IP address of the FTP or SFTP server

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# debug
ruckus(debug)# kdump enable
```

ruckus(debug)# logout

Exits from the CLI application.

```
ruckus(debug)# logout
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
        ruckus# debug
        ruckus(debug)# logout
```

ruckus(debug)# remote-packet-capture

Enables or disables remote packet capture on the controller.

`ruckus(debug)#` **remote-packet-capture** <enable | disable>

Syntax Description

This command uses the following syntax: name:

enable - Enables packet capture.

disable - Disables packet capture.

Default

This command has no default settings.

Command Mode

Debug

Example

```
ruckus> enable
        ruckus# debug
        ruckus(debug)# dp-packet-capture enable
```

ruckus(debug)# remote-syslogd

Enables or disables the redirection of syslog to the remote syslog server.

`ruckus(debug)#` **remote-syslogd**<enable | disable> <udp|tcp> <ip> <port>

Syntax Description

This command uses the following syntax: name:

enable - Enables sending messages to remote syslog server.

udp - UDP IP for transmitting the syslog files

tcp - TCP IP for transmitting the syslog files

ip - IP address of the Syslog server

port - Port number of the Syslog server

disable - Disables sending messages to remote syslog server.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# debug
        ruckus(debug)# remote-syslogd disable
```

ruckus(debug)# save-log

Saves the log to the remote controller.

```
ruckus(debug)# save-log controller
ruckus(debug)# save-log <ftp | tftp | sftp> <ipaddr> <path> [user] [password]
```

Syntax Description

This command uses the following syntax: name:

save-log controller - Saves the debug log to the controller.

save-log <ftp/tftp/sftp> <ipaddr> <path> [user] [password] - Saves the debug log to the ftp/tftp/sftp server assigned. Specify the path and user credentials of user name and password.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# debug
    ruckus(debug)# save-log scg200
```

ruckus(debug)# show

Shows the status of remote and data plane packet captures.

```
ruckus(debug)# show
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# debug
ruckus(debug)# show
Remote Packet Capture: Enable
Data Plane Packet Capture: Disable
```

System Commands

ruckus# backup

Backs up the controller configurations.

```
ruckus# backup <ftp/tftp/sftp>, <ip-addr>
```

Syntax Description

This command uses the following syntax:

ftp/tftp/sftp - Path or file name on the server. Specify the user name and password if you are using FTP or SFTP server.

NOTE
The file name will be generated by the system if the path is specified.

ip-addr - IP address of the FTP / TFTP or SFTP server

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
       ruckus# backup tftp 10.0.0.10 /tmp/filename.bak
       ruckus# backup tftp 10.0.0.10 /tmp/
```

ruckus# clone

Clones the controller configuration.

```
ruckus# clone <ftp/tftp/sftp>, <ip-addr>
```

Syntax Description

This command uses the following syntax:

ftp/tftp/sftp - Path or file name on the server. Specify the user name and password if you are using FTP or SFTP server.

NOTE
The file name will be generated by the system if the path is specified.

ip-addr - IP address of the FTP / TFTP or SFTP server

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# clone tftp 10.0.0.10 /tmp/filename.bak
ruckus# clone tftp 10.0.0.10 /tmp/
```

ruckus# config

Configure options and settings in this mode.

```
ruckus# config
ruckus(config)#
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# config
ruckus(config)#.....
```

ruckus# debug

Manages system debug options.

```
ruckus# debug
ruckus(debug)#
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# debug
        ruckus(debug)# save-log
```

ruckus# disable

Disables Privileged commands.

```
ruckus# disable
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# disable
```

ruckus# enable

Modifies the enable password.

```
ruckus# enable
```

Syntax Description

This command uses the following syntax:

old password: Existing controller administrator password.

new password: The new controller administrator password that you want to set.

retype password: Retype the new controller administrator password.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# enable
Old Password: *********
New Password: *********
Retype: *********
Successful operation
```

ruckus# exit

Exits from the EXEC mode.

```
ruckus# exit
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# exit
```

ruckus# fips

Configures the Federal Information Processing Standards (FIPS) options.

```
ruckus# fips selftest | showlog | status | zeroization
```

Syntax Description

This command uses the following syntax:

selftest: FIPS self test.

showlog: Shows the bootup self-test log.

status: Indicates the status of system FIPS compliance.

zeroization: Erases all configurations and security information.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> fips showlog
===========OpenSSL selftest===========
DRBG: PASSED
X931: PASSED
SHA1: PASSED
SHA2: PASSED
HMAC: PASSED
CMAC: PASSED
AES : PASSED
AES-CCM : PASSED
AES-GCM : PASSED
AES-XTS : PASSED
DES : PASSED
RSA : PASSED
ECDSA : PASSED
DSA : PASSED
DH : PASSED
ECDH : PASSED
ECP384 : PASSED
```

ruckus# help

Displays the help messages.

```
ruckus# help
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# help
```

ruckus# history

Displays a list of previously run commands.

```
ruckus# history
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# history
```

ruckus# logout

Exits from the controller CLI application.

```
ruckus# logout
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# logout
```

ruckus# ping

Sends ICMP echo packets to an IP address or domain name.

```
ruckus#  ping[- LRUbdfnqrvVaA]
    [-c count][-i interval][-w deadline][-p pattern]
    [- s packetsize][-t ttl][-I interface or address]
    [- M mtu discovery hint][- S sndbuf][ -T timestamp option ]
    [ -Q tos ] [hop1 ...] destination
```

Syntax Description

This command has the following syntax:

- count
- interval
- deadline
- pattern
- packetsize
- ttl
- interface or address
- mtu discovery hint
- sndbuf
- timestamp option
- destination

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# ping
```

ruckus# ping6

Sends ICMP echo packets to an IPv6 address or domain name.

```
ruckus#  ping6[- LRUbdfnqrvVaA]
    [-c count][-i interval][-w deadline][-p pattern]
    [- s packetsize][-t ttl][-I interface]
    [- M mtu discovery hint][- S sndbuf][-F flow label]
     [-Q traffic class] [hop1 ...] destination
```

Syntax Description

This command has the following syntax:

- count
- interval
- deadline
- pattern
- packetsize
- ttl
- interface
- mtu discovery hint
- sndbuf
- flow label
- traffic class
- destination

Default

This command has no default settings.

Command Mode

config

Example

```
ruckus# ping 6
```

ruckus# quit

End the CLI sessions.

```
ruckus# quit
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Priviledged

Example

```
ruckus# quit
```

ruckus# reboot

Reboots the controller.

```
ruckus# reboot
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# reboot
```

ruckus# reset

Resets the DHCP server binding and NAT server profile.

```
ruckus# reset dhcp <binding | profile>
ruckus# reset nat
```

Default

This command has no default settings.

Command Mode

config

Example

```
ruckus(config)# reset dhcp binding 172.19.19.55
```

ruckus# restore

Restores the controller configuration.

```
ruckus# restore <ftp/tftp/sftp> <ip-addr>
```

Syntax Description

This command uses the following syntax:

ftp/tftp/sftp - File name with the full path of the server. Specify the user name and password if you are using FTP or SFTP server.

ip-addr - IP address of the FTP / TFTP or SFTP server

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
```

```
ruckus# restore tftp 10.0.0.10 /tmp/filename.bak
```

ruckus# route

Sets the static route.

Route - Show command

```
ruckus# route show {main | json | table-name | all} [ip6]
```

Route - Add commands

```
ruckus# route add <dst. network> <dst. netmask> <next hop>
ruckus# route add ip6 <dst6. network> / <prefixlen> <next hop6>
```

Route - Delete commands

```
ruckus# route del <dst. network> <dst. netmask> <next hop>
ruckus# route del ip6 <dst6. network> / <prefixlen> <next hop6>
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# route show main
```

ruckus# set-factory

Resets the controller configuration to the factory settings.

```
ruckus# set-factory
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# set-factory
```

ruckus# show

Displays information about the various components of the controller.

`ruckus#` **`show`** *command*

Syntax Description

This *command* has the following syntax:

- **ue-nat-session**: Displays the system options and settings.
- **version**: Shows the system version number and serial number.
- **interface**: Shows configured and current network settings for management and data interfaces.
  - **management-config**: Shows the management interface configuration.
  - **data-config**: Shows the data interface configuration.
  - **access-core-sep-config:** Shows the access core separate interface configuration.
  - **current-management:** Shows the management interface runtime.
  - **current-data**: Shows the data interface runtime.
  - **current-access-core-separate**: Shows the access core separate interface runtime.
- **ip**: Shows the IP information of the system.
  - **name-server**: Shows the DNS server information.
  - **data-nat ip:** Shows the NAT server information.
- **dpm**: Shows DPM-related configuration.
- **status**: Shows current network settings and connection status of the controller.
- **stats**: Shows the current traffic statistics and basic system information of the controller.
- **upgrade**: Shows the previous upgrade information of the controller.
- **upgrade-history:** Shows the controller upgrade history.
- **controller**: Shows the vSZ-related configuration.
  - **controller cli_upload_cert_chain**: Shows the user upload certificate chain.
  - **controller current_cert_chain**: Shows the vSZ-related current server certificate chain.
  - **controller controller connect_status**: Shows the vSZ-D connection status to the controller.
- **running-config**: Displays the DHCP/NAT configuration
- **dhcp**: Shows DHCP binding or profile.
- **event**: Shows the controller event log.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# show version
Model               : vSZ-D
vSZ-D Serial Number   : 97xxxxxxxxxxxx
vSZ-D Version         : 5.1.1.0.466

ruckus# show running-config
 nat    Display NAT configuration
 dhcp   Display DHCP configuration

ruckus# show event
2019-03-18T17:28:57+00:00 vDP-243 vdp_cli[566]: @@99214,dpUserLogout,
"dpKey"="97H0T58MTPWU263XS6N432G7X55Q000C297375FB000C29737505","source"="10.206.67.253","account"="admin
"

2019-03-18T17:38:47+00:00 vDP-243 vdp_cli[27580]: @@99221,dpSessionIdleTerminated,
"dpKey"="97H0T58MTPWU263XS6N432G7X55Q000C297375FB000C29737505","source"="Console"

2019-03-18T17:38:47+00:00 vDP-243 vdp_cli[27580]: @@99214,dpUserLogout,
"dpKey"="97H0T58MTPWU263XS6N432G7X55Q000C297375FB000C29737505","source"="Console","account"="admin"

2019-03-21T11:19:05+00:00 vDP-243 vdp_cli[14105]: @@99212,dpUserLogin,
"dpKey"="97H0T58MTPWU263XS6N432G7X55Q000C297375FB000C29737505","source"="10.206.67.253","account"="admin
"
```

ruckus# shutdown

Shuts down the controller.

```
ruckus# shutdown[ now | X (minutes) ]
```

Syntax Description

This command has the following syntax.

now : Shutdown the system immediately.

X : shutdown the system after X minutes.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# shutdown
```

ruckus# traceroute

Prints the route that the packets take to the network host.

```
ruckus# traceroute[ -46dFITnreAUV ][ -f first_ttl ][ -g gate,... ] [ -i device ] [ -m
    max_ttl ] [ -N squeries ] [ -p port ] [ -t tos ] [ -l flow_label ][ -w waittime ] [ -q
    nqueries ][ -s src_addr ] [ -z sendwait ] host [ packetlen ]
```

Syntax Description

This command has the following syntax:

- first_ttl
- gate
- device
- max_ttl
- squeries
- port
- tos
- flow_label
- waittime
- nqueries
- src_address
- sendwait
- packetlen

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus# traceroute
```

ruckus# traceroute6

Prints the route that the packets take to the network host.

```
ruckus# traceroute6[ -46dFITnreAUV ][ -f first_ttl ][ -g gate,... ] [ -i device ] [ -m
    max_ttl ] [ -N squeries ] [ -p port ] [ -t tos ] [ -l flow_label ][ -w waittime ] [ -q
    nqueries ][ -s src_addr ] [ -z sendwait ] host [ packetlen ]
```

Syntax Description

This command has the following syntax:

- first_ttl
- gate
- device
- max_ttl
- squeries
- port
- tos
- flow_label
- waittime
- nqueries
- src_address
- sendwait
- packetlen

Default

This command has no default settings.

Command Mode

config

Example

```
ruckus# traceroute6 indus-ap
```

ruckus# upgrade

Upgrades the controller firmware.

```
ruckus# upgrade <ftp/sftp> <ip-addr>
```

Syntax Description

This command uses the following syntax:

ftp/sftp - File name with the full path on the server. Specify the user name and password if you are using FTP or SFTP server.

ip-addr - IP address of the FTP or SFTP server

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> enable
ruckus# upgrade ftp 10.0.0.10 /tmp/filename.dat
```

ruckus# usgv6

Runs the US Government IPv6 (USGv6) automation tests..

```
ruckus# usgv6 {backup-dns-config-n-modify <dns-server> | exit | flush-v6-neigh <device name> | help | history | logout | ping6 | restart-device <device name> | restore-dns-config | set-dev-mtu <device name> <mtu number>}
```

Syntax Description

This command uses the following syntax:

backup-dns-config-n-modify *<dns-server>*- Backup and modify the configuration file for the specified DNS server.

exit: Exits from USGv6 command.

flush-v6-neigh *<device name>*: Flushes IPv6 neigh's entries for the specified device.

help: Display the help message.

history: Shows a list of previously run commands.

logout: Exits from the EXEC mode.

ping6 : Pings the IPv6 utility.

restart-device *<device name>*: Restarts the specified device.

restore-dns-config : Restores the backup DNS configuration file.

set-dev-mtu *<device name><mtu number>*: Sets the specified device and MTU number.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus> usgv6
        ruckus(usgv6)#
```

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