



Virtual SmartZone Data Plane (vSZ-D) for SmartZone Release 3.4.1

Command Line Interface Reference Guide

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About This Guide

This *Virtual SmartZone Data Plane (vSZ-D) Command Line Interface Reference Guide* describes the commands that the vSZ-D uses to enable the data plane based features on the Ruckus Wireless platform.

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 Wireless Support Web site at <https://support.ruckuswireless.com/contact-us>.

Document Conventions

[Table 1: Text conventions](#) on page 5 and [Table 2: Notice conventions](#) on page 6 list the text and notice conventions that are used throughout this guide.

Table 1: Text conventions

Convention	Description	Example
message phrase	Represents messages displayed in response to a command or a status	[Device Name] >
user input	Represents information that you enter	[Device Name] > set ipaddr 10.0.0.12
user interface controls	Keyboard keys, software buttons, and field names	Click Create New
Start > All Programs	Represents a series of commands, or menus and submenus	Select Start > All Programs
ctrl+V	Represents keyboard keys pressed in combination	Press ctrl+V to paste the text from the clipboard.
screen or page names		Click Advanced Settings . The Advanced Settings page appears.
command name	Represents CLI commands	

Convention	Description	Example
parameter name	Represents a parameter in a CLI command or UI feature	
<i>variable name</i>	Represents variable data	<i>{ZoneDirectorID}</i>
filepath	Represents file names or URI strings	http://ruckuswireless.com

Table 2: Notice conventions

Notice type	Description
NOTE:	Information that describes important features or instructions
CAUTION:	Information that alerts you to potential loss of data or potential damage to an application, system, or device
WARNING:	Information that alerts you to potential personal injury

Terminology

The table lists the terms used in this guide.

Table 3: 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
HS2.0	Hotspot 2.0
IDM	Identity Management
MCC	Mobile Country Code
MNC	Mobile Network Code
MNO	Mobile Network Operator

Terminology	Description
MO	Managed Object
MSO	Multiple System Operator
GTPv2-C	Network Access Identifier
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

Terminology	Description
USIM	Universal Subscriber Identity Module
UTP	User Traffic Profile
UUID	Universal Unique Identifier
VSA	Vendor Specific Attributes
WAN	Wide Area Network
WFA	Wi-Fi Alliance
WLAN	Wireless Local Area Network

Related Documentation

For a complete list of documents that accompany this release, refer to the Release Notes.

Online Training Resources

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

<https://training.ruckuswireless.com>.

Documentation Feedback

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

You can email your comments to Ruckus Wireless at: docs@ruckuswireless.com

When contacting us, please include the following information:

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

Overview of the vSZ-D Command Line Interface

In this chapter:

- [Accessing the Command Line Interface](#)

The Virtual SmartZone DataPlane (vSZ-D) command line interface (CLI) is a software tool that enables you to configure and manage vSZ-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

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

What You Will Need

To access the vSZ-D CLI, you will need the following:

1. A computer that you want to designate as administrative computer
2. A network connection to the vSZ-D (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 vSZ-D 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 (Web) interface of vSZ-D, 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: Selecting SSH as a connection type](#) on page 10.
2. In *Connection type*, select SSH.

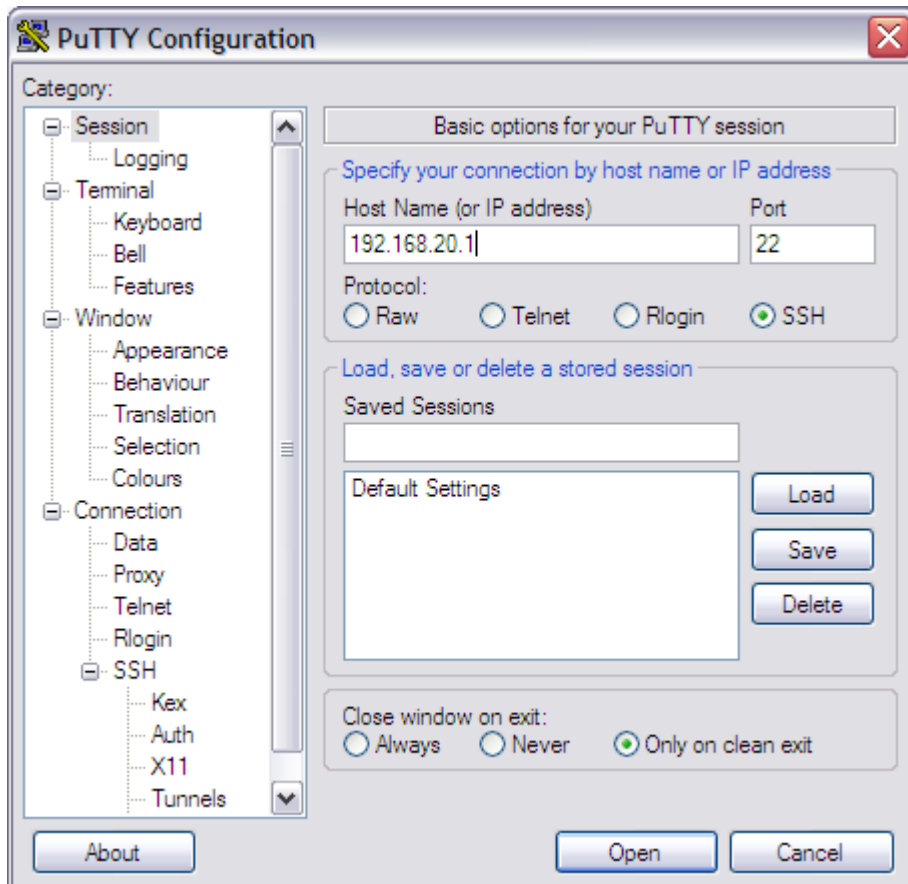


Figure 1: Selecting SSH as a connection type

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

Using the Console Connection

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.

Log On to CLI

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

- Log on to the vSZ-D using putty/Xssh (any other application) using the user credentials of login name and password as given.

NOTE: You cannot use 'admin' as a password, which is used during the vSZ-D installation procedure.

- The Ruckus Wireless vSZ-D CLI welcome message appears with the CLI prompt as seen in [Figure 2: Welcome to vSZ-D](#) on page 12 .

```
login as: admin
#####
#      Welcome to vSZ-D
#####
admin@172.17.18.177's password:
Welcome to the RUCKUS WIRELESS vSZ-D Command Line Interface
vSZ-D> help

Commands available:
  enable          Modify enable password
  exit            Exit from the EXEC
  help            Display this help message
  logout          Exit from the EXEC
  quit            End the CLI sessions.
  history          Show a list of previously run commands
  ping            Send ICMP echo packets to an IP address or domain name
  traceroute      Print the route packets take to network host
  show version    Display system options and settings
vSZ-D> █
```

Figure 2: Welcome to vSZ-D

- You are now logged into the vSZ-D 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 ?. See [Figure 3: Using Show Commands](#) on page 12.

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

```
vSZ-D> enable
Password:
vSZ-D# show
version interface ip dpm
status stats upgrade upgrade-history
controller
vSZ-D# show █
```

Figure 3: Using Show Commands

- 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: Using the Ping command](#) on page 13.

```
vSZ-D# ping
Usage: ping [-LRUbdnqrVvAa] [-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
vSZ-D# ping 172.17.18.1
PING 172.17.18.1 (172.17.18.1) 56(84) bytes of data.
64 bytes from 172.17.18.1: icmp_seq=1 ttl=255 time=2.09 ms
64 bytes from 172.17.18.1: icmp_seq=2 ttl=255 time=2.14 ms
64 bytes from 172.17.18.1: icmp_seq=3 ttl=255 time=2.12 ms
64 bytes from 172.17.18.1: icmp_seq=4 ttl=255 time=2.27 ms
64 bytes from 172.17.18.1: icmp_seq=5 ttl=255 time=2.28 ms
64 bytes from 172.17.18.1: icmp_seq=6 ttl=255 time=2.29 ms
64 bytes from 172.17.18.1: icmp_seq=7 ttl=255 time=2.10 ms
64 bytes from 172.17.18.1: icmp_seq=8 ttl=255 time=2.08 ms
64 bytes from 172.17.18.1: icmp_seq=9 ttl=255 time=2.33 ms
64 bytes from 172.17.18.1: icmp_seq=10 ttl=255 time=2.08 ms
64 bytes from 172.17.18.1: icmp_seq=11 ttl=255 time=2.20 ms

--- 172.17.18.1 ping statistics ---
11 packets transmitted, 11 received, 0% packet loss, time 10675ms
rtt min/avg/max/mdev = 2.080/2.183/2.332/0.095 ms
vSZ-D# █
```

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: Changing to privileged mode](#) on page 13. The prompt changes from ruckus> to ruckus# (with a pound sign). Refer to the [enable](#) command for details.

```
INDUS4> en → User mode
Password: *****
INDUS4# → Privileged mode
INDUS4 (config) # █
```

Figure 5: Changing to privileged mode

Supported CLI User and Privileged Modes 2

In this chapter:

- [User Mode](#)
- [Privileged Mode](#)

The supported commands are listed in a tree view as follows.

* Initial or User mode *	* Enable or Privileged mode *
->enable ->end ->exit ->help ->logout ->quit ->history ->show ->ping ->traceroute	->enable ->end ->exit ->help ->logout ->history ->disable ->reboot ->ping ->traceroute ->setup ->show ->shutdown ->config <ul style="list-style-type: none"> • ->end • ->help • ->history • ->logout • ->ip name-server • ->ip data-nat • ->set-factory • ->admin <ul style="list-style-type: none"> • ->help • ->logout • ->history • ->end • ->name • ->passwd

* Initial or User mode *	* Enable or Privileged mode *
	<ul style="list-style-type: none"> • ->timeout • ->show • ->interface management <ul style="list-style-type: none"> • ->help • ->logout • ->history • ->end • ->no • ->ext-nat • ->ip • ->vlan • ->interface data <ul style="list-style-type: none"> • ->help • ->logout • ->history • ->end • ->no • ->ext-nat • ->ip • ->vlan • ->controller <ul style="list-style-type: none"> • ->help • ->logout • ->history • ->ip • ->end • ->dpm <ul style="list-style-type: none"> • ->help • ->logout • ->history • ->end • ->hb-intvl ->debug <ul style="list-style-type: none"> • ->help • ->diag • ->end • ->history • ->logout

* Initial or User mode *	* Enable or Privileged mode *
	<ul style="list-style-type: none"> • ->remote-syslogd • ->save-log <p>->backup</p> <p>->restore</p> <p>->clone</p> <p>->upgrade</p> <p>->route</p>

User Mode

enable

Turns on privileged commands.
ruckus>enable

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

ruckus>enable

end

Saves the changes and returns to the first tier.
ruckus>end

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus>end
```

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 vDP 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 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 (config) #ping
```

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
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

User

Example

```
ruckus>showversion
```

Shows the system version number and serial number.

traceroute

Prints the route that the packets take 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
```

Privileged Mode

ruckus#enable

Modifies the enable password.

```
ruckus#enable
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#enable
```

Old password:

New password:

Retype:

ruckus#end

Saves the changes and returns to the first tier.

```
ruckus#end
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#end
```

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#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#logout

Exits from the vDP 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#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#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#reboot

Reboots the VDP.

```
ruckus#reboot
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#reboot
```

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 (config) #ping
```

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#show

Shows system information.

```
ruckus#show
```

Syntax Description

This command has the following syntax:

- **version** : shows system version number and serial number
- **interface**: shows configured and current network settings for management and data interfaces.

- **interface management-config**: Shows configured network settings for the management interface.
- **interface data-config**: Shows configured network settings for the data interface.
- **interface current-management**: Shows the current network settings for the management interface.
- **interface current-data**: Shows the current network settings for the data interface.
- **dpm**: Shows DPM related configuration.
- **status**: Shows current network settings and connection status between vSCG and VDP.
- **stats**: Shows the current VDP traffic statistics and basic system information.
- **controller** : Shows the controller related configuration.
- **upgrade** : Shows vSZ-D previous upgrade information.
- **upgrade-history**: Shows vSZ-D upgrade history.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#show version
```

ruckus#config

Configure options and settings in this mode.

```
ruckus#config
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#config
```

ruckus(config)#end

Saves the changes and returns to the first tier.

```
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)#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
```

ruckus(config)#logout

Exits from the vSZ-D 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)#ip name-server

Sets the name server.

```
ruckus (config) #ip name-server <address>
```

Syntax Description

This command has the following syntax.

address:

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus (config) #ip name-server
```

ruckus(config)#ip-data-nat

Sets the external NAT IP address of the data interface.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config)#set-factory

Sets factory to default settings.

```
ruckus (config) #set-factory
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enableruckus#configruckus (config) #set-factory
```

ruckus(config)#admin

Enter the admin mode to configure admin settings.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable
```

```
ruckus#config
```

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

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

ruckus(config-admin)#end

Saves the changes and returns to the first tier.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config-admin)#help

Displays the help messages.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config-admin)#history

Displays a list of previously run commands.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus (config-admin) #history  
ruckus(config-admin)#logout  
Exits from the vSZ-D CLI application.  
ruckus (config-admin) #logout
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus (config-admin) #logout  
ruckus(config-admin)#name  
Sets the host name.  
ruckus (config-admin) #name <new-hostname>
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable  
  
ruckus#config  
  
ruckus (config) #admin  
  
ruckus (config-admin) #name<new-hostname>
```

ruckus(config-admin)#passwd

Sets the local account super password.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable
```

```
ruckus#config
```

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

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

ruckus(config-admin)#timeout

Sets the CLI idle timeout value.

```
ruckus (config-admin) #timeout <value>
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable
```

```
ruckus#config
```

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

```
ruckus (config-admin) #timeout <value>
```

ruckus(config-admin)#show

Displays the administrative settings.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config)#interface management

Configure management interface settings through config interface mode.

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

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) #
```

ruckus(config-interface)#end

Saves the changes and returns to the first tier.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#help

Displays the help messages.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#history

Displays a list of previously run commands.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#logout

Displays a list of previously run commands.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#ext-nat data-nat-addr

Sets the external NAT IP address of the data interface.

```
ruckus (config-interface) #ext-nat data-nat-addr
```

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) #ext-nat data-nat-addr <address>
```

ruckus(config-interface)#ip

Sets the interface settings. `ip addr` sets the interface static IP address. `ip mode` sets the interface IP mode. `ip gateway` sets the interface gateway.

```
ruckus (config-interface) #ip addr <ip-addr><netmask>
```

```
ruckus(config-interface)#ip mode <static>or <dhcp>  
ruckus(config-interface)#ip gateway <gateway-addr>
```

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 | management  
ruckus(config-interface)#ip addr  
ruckus(config-interface)#ip mode  
ruckus(config-interface)#ip gateway
```

ruckus(config-interface)#vlan

Sets interface VLAN.

```
ruckus(config-interface)#vlan <0-4095>
```

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 | management}  
ruckus(config-interface)#vlan <0-4095>
```

ruckus(config-interface)#no vlan

Disables the VLAN interface.

```
ruckus(config-interface)#no vlan <0-4095>
```

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 | management}
```

```
ruckus(config-interface)# no vlan <0-4095>
```

ruckus(config)#interface data

Configures data interface settings.

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

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)#
```

ruckus(config-interface)#end

Saves the changes and returns to the first tier.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#help

Displays the help messages.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#history

Displays a list of previously run commands.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#logout

Exits from the vSZ-D CLI application.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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

ruckus(config-interface)#ext-nat data-nat-addr

Sets the external NAT IP address of the data interface.

```
ruckus(config-interface)#ext-nat data-nat-addr
```

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 | management
```

```
ruckus(config-interface)#ext-nat data-nat-addr <address>
```

ruckus(config-interface)#ip

Sets the interface settings. `ip addr` sets the interface static IP address. `ip mode` sets the interface IP mode. `ip gateway` sets the interface gateway.

```
ruckus(config-interface)#ip addr <ip-addr><netmask>
```

```
ruckus(config-interface)#ip mode <static>or <dhcp>
```

```
ruckus(config-interface)#ip gateway <gateway-addr>
```

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 | management
```

```
ruckus(config-interface)#ip addr
```

```
ruckus(config-interface)#ip mode
```

```
ruckus(config-interface)#ip gateway
```

ruckus(config-interface)#no data-nat-addr

Removes external NAT of the data interface.

```
ruckus(config-interface)#no data-nat-addr
```

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)#no data-nat-addr
ruckus(config-interface)#no vlan
Disables the VLAN interface.
ruckus(config-interface)#no vlan <0-4095>
```

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 | management}
ruckus(config-interface)# no vlan <0-4095>
ruckus(config-interface)#vlan
Sets interface VLAN.
ruckus(config-interface)#vlan <0-4095>
```

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 | management}  
ruckus(config-interface)#vlan <0-4095>
```

ruckus(config)#controller

Configures the virtual DataPlane settings.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable  
ruckus#config  
ruckus(config)#controller  
ruckus(config-controller)#  
ruckus(config-controller)#end  
Saves the changes and returns to the first tier.  
ruckus(config-controller)#end
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus(config)#controller  
ruckus(config-controller)#end
```

ruckus(config-controller)#help

Displays the help messages.

```
ruckus (config-controller) #help
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

```
ruckus (config-controller) #help
```

ruckus(config-controller)#history

Displays a list of previously run commands.

```
ruckus (config-controller) #history
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

```
ruckus (config-controller) #history
```

ruckus(config-controller)#logout

Exits from the vSZ-D CLI application.

```
ruckus (config-controller) #logout
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

```
ruckus (config-controller) #logout
```

ruckus(config-controller)#ip

Sets the vSZ IP address.

```
ruckus (config-controller) #ip <ip-addr>
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable
```

```
ruckus#config
```

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

```
ruckus (config-controller) #ip <ip-addr>
```

ruckus(config)#dpm

Configures DPM settings.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config-dpm)#end

Saves the changes and returns to the first tier.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus (config-dpm) #end  
ruckus(config-dpm)#help  
Displays the help messages.  
ruckus (config-dpm) #help
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config-dpm)#history

Displays a list of previously run commands.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config-dpm)#logout

Exits from the vSZ-D CLI application.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(config-dpm)#hb-intvl

Sets the DPM heartbeat interval. The heartbeat interval is between 10 and 255 seconds.

```
ruckus (config-dpm) #hb-intvl <value>
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable  
ruckus#config  
ruckus (config) #dpm  
ruckus (config-dpm) #hb-intvl 50
```

ruckus#debug

Manages system debug options.

```
ruckus#debug
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(debug)#end

Saves the changes and returns to the first tier.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

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 (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 (debug) #history
```

ruckus(debug)#logout

Exits from the vSZ-D CLI application.

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(debug)#diag

Diagnostic with internal CLI. Supports internal commands: **tunnelmgr_cli**, **tbldump**, **dpminfo**, and **dp_comm**.

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

ruckus(debug)#remote-syslogd

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

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

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

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus(debug)#save-log

Saves the log to remote vSZ-D/ftp/sftp.

```
ruckus (debug) #save-log scg  
ruckus (debug) #save-log <ftp> <ip-addr> <path> [username] [password]
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#debug  
ruckus (debug) #save-log scg  
ruckus (debug) #save-log <ftp> <ip-addr> <path> [username] [password]
```

ruckus#backup

Backs up vDP configurations.

```
ruckus#backup <ftp> <ip-addr> <Image name with path on the server >  
[username is needed if you used FTP] [password is needed if you used  
FTP]
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable  
ruckus#backup <ftp> <ip-addr>
```

ruckus#restore

Restore vSZ-D configuration.

```
ruckus#restore <ftp> <ip-addr> <Image name with path on the server >  
> [username is needed if you used FTP] [password is needed if you  
used FTP]
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable  
ruckus#restore <ftp> <ip-addr>
```

ruckus#clone

Clones the vSZ-D configuration.

```
ruckus#clone <ftp> <ip-addr> <Image name with path on the server >  
[username is needed if you used FTP] [password is needed if you used  
FTP]
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable  
ruckus#clone <ftp> <ip-addr>
```

ruckus#upgrade

Upgrades the vDP firmware.

```
ruckus#upgrade <ftp/sftp> <ip-addr> <The filename with full path on  
the server > [username is needed if you used FTP] [password is needed  
if you used FTP]
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

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

ruckus#setup

Setup wizard. To configure the interface/network settings and local password.
ruckus#setup

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus#setup
```

ruckus#shutdown

Shuts down the vSZ-D.

```
ruckus#shutdown[ now | (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#route

Sets the static route.

```
ruckus#route show
```

```
ruckus#route {add | del} ROUTE
```

```
ruckus#route dump
```

Syntax Description

This command has no syntax.

Default

This command has no default settings.

Command Mode

Privileged

Example

```
ruckus>enable
```

```
ruckus#route show
```

```
ruckus#route {add | del} ROUTE
```

```
ruckus#route dump
```

where: ROUTE := <NextHot IF> <Dst. Network> <Dst. Netmask> <NextHot IP> [<Metric>]

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