



CHAPTER 2

Cisco Virtual Security Gateway Commands

This chapter provides information about Cisco Virtual Security Gateway (VSG) commands.

action

To specify the actions to be executed when traffic characteristics match with an associated rule, use the **action** command. To remove the binding of the action with the given rule, use the **no** version of this command.

```
action { drop | permit | log | inspection protocol-type }
```

Syntax Description		
drop		Drops the incoming packets.
permit		Permits the incoming packets.
log		Logs the policy evaluation event.
inspection		Specifies the protocol be inspected.
<i>protocol-type</i>		Specific protocol type to be inspected. FTP, RSH, and TFTP are supported.

Command Default None

Command Modes Policy configuration (config-policy)

Supported User Roles network-admin

Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines Use the **action** command to specify the actions to be executed when traffic characteristics match with the associated rule. The command can be entered multiple times until the upper bound limit is reached.

Examples This example shows how to specify that the policy is to drop packets:

```
vsg(config-rule)# action drop
```

Related Commands	Command	Description
	rule	Enters the rule configuration submode.

attach

To access a module or the console of a module, use the **attach** command.

attach { **console module** *module-number* | **module** *module-number* }

Syntax Description	console module	Specifies the console.
	<i>module-number</i>	Module number. The range is from 1 to 66.
	module	Specifies a module.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to attach to a module:

```
VSG# attach module 1
Attaching to module 1 ...
To exit type 'exit', to abort type '$.'
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TAC support: http://www.cisco.com/tac
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such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
```

Related Commands	Command	Description
	show terminal	Displays information about the terminal.

attribute

To specify the particular attribute characteristics of a policy that is to be tested, use the **attribute** command.

attribute *attr-seq-num attr-name value attr-value*

Syntax Description		
	<i>attr-seq-num</i>	Attribute input sequence number.
	<i>attr-name</i>	Name of a VM or network attribute (for example, src.vm.name).
	value	Designates the use of the following attribute value.
	<i>attr-value</i>	Value of a VM or network attribute (for example, engg).

Command Default None

Command Modes Test policy-engine (test-policy-engine)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.

Examples This example shows how to specify an attribute for a policy.

```
vsg(test-policy-engine)# attribute 1 src.vm.name value engg
vsg(test-policy-engine)# attribute 2 src.net.ip-address value 10.10.10.1
vsg(test-policy-engine)# exit
```

Result: DROP, Policy: p1, Rule: r1

Related Commands	Command	Description
	test policy-engine	Enters the test policy-engine submode.
	simulate-pe-req policy	

banner motd

To configure a message of the day (MOTD) banner, use the **banner motd** command.

banner motd [*delimiting-character message delimiting-character*]

no banner motd [*delimiting-character message delimiting-character*]

Syntax Description

<i>delimiting-character</i>	(Optional) Character used to signal the beginning and end of the message text. For example, in the following message, the delimiting character is #: #Testing the MOTD#
<i>message</i>	(Optional) Banner message. Up to 40 lines with a maximum of 80 characters in each line.

Defaults

“User Access Verification” is the default message of the day.

Command Modes

Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines

The MOTD banner is displayed on the terminal before the login prompt whenever you log in.

The message is restricted to 40 lines and 80 characters per line.

To create a multiple-line MOTD banner, press **Enter** before typing the delimiting character to start a new line. You can enter up to 40 lines of text.

Follow these guidelines when choosing your delimiting character:

- Do not use the *delimiting-character* in the *message* string.
- Do not use " and % as delimiter.

Examples

This example shows how to configure and then display a banner message with the text, “Testing the MOTD”:

```
vsg(config)# banner motd #Testing the MOTD#
vsg(config)# show banner motd
Testing the MOTD
```

This example shows how to configure and then display a multiple-line MOTD banner:

```
vsg(config)# banner motd #Welcome to authorized users.  
> Unauthorized access prohibited.#  
vsg(config)# show banner motd  
Welcome to authorized users.  
Unauthorized access prohibited.
```

This example shows how to revert to the default MOTD banner:

```
vsg(config)# no banner motd  
vsg(config)# show banner motd  
User Access Verification
```

Related Commands

Command	Description
show banner motd	Displays the MOTD banner.

boot

To configure boot images, use the **boot** command. To revert to default settings, use the **no** form of this command.

```
boot {asm-sfn | auto-copy | kickstart bootflash | ssi | system bootflash}
```

```
no boot {asm-sfn | auto-copy | kickstart bootflash | ssi | system bootflash}
```

Syntax Description	asm-sfn	Specifies a boot variable.
	auto-copy	Enables or disables automatic copying of boot images to the standby Cisco VSG.
	kickstart bootflash	Specifies the boot variable URI for the kickstart image.
	ssi	Specifies a boot variable.
	system bootflash	Specifies the boot variable URI for the system image.

Defaults None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to configure a boot variable:

```
vsg(config)# boot asm-sfn bootflash module 6
```

Related Commands	Command	Description
	show boot	Displays the current boot variables.

cd

To change to a different directory, use the **cd** command.

```
cd {bootflash: | volatile:}
```

Syntax Description

bootflash:	Specifies the bootflash directory.
volatile:	Specifies the volatile directory.

Defaults

bootflash:

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines

Use the **pwd** command to verify the name of the directory you are currently working in.

Examples

This example shows how to change to the volatile directory:

```
vsg# cd volatile
vsg#
```

Related Commands

Command	Description
pwd	Displays the name of the directory you are currently working in.

cdp

To configure the Cisco Discovery Protocol (CDP), use the **cdp** command. To remove the CDP configuration, use the **no** form of this command.

```
cdp {advertise {v1 | v2} | enable | format device-id | holdtime seconds | timer seconds}
```

```
no cdp {advertise | enable | format device-id | holdtime seconds | timer seconds}
```

Syntax Description		
advertise		Specifies the CDP version to advertise.
v1		Specifies CDP Version 1.
v2		Specifies CDP Version 2.
enable		Enables CDP globally on all interfaces and port channels.
format device-id		Specifies the device ID format for CDP.
holdtime seconds		Sets the maximum amount of time that CDP holds onto neighbor information before discarding it. The range is from 10 to 255.
timer seconds		Sets the refresh time for CDP to send advertisements to neighbors. The range is from 5 to 254.

Defaults	
	None

Command Modes	
	Global configuration (config)

Supported User Roles	
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to set CDP Version 1 as the version to advertise: <pre>vsg(config)# cdp advertise v1</pre>
	This example shows how to remove CDP Version 1 as the version to advertise: <pre>vsg(config)# no cdp advertise v1</pre>

Related Commands	Command	Description
	show cdp global	Displays the CDP configuration.

clear accounting

To clear the accounting log, use the **clear accounting** command.

clear accounting log

Syntax Description	log	Clears the accounting log.
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Defaults	None
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the accounting log: vsg# clear accounting log
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Related Commands	Command	Description
	show accounting log	Displays the accounting log.

clear ac-driver

To clear Application Container (AC) driver statistics, use the **clear ac-driver** command.

clear ac-driver statistics

Syntax Description	statistics Clears AC driver statistics.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to clear AC driver statistics:</p> <pre>vsg# clear ac-driver statistics</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show ac-driver statistics</td> <td>Displays AC driver statistics.</td> </tr> </tbody> </table>	Command	Description	show ac-driver statistics	Displays AC driver statistics.
Command	Description				
show ac-driver statistics	Displays AC driver statistics.				

clear bootvar

To clear the boot variables log, use the **clear bootvar** command.

clear bootvar log

Syntax Description	log	Clears the boot variables log.
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Defaults	None
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the boot variables log: <pre>vsg# clear bootvar log</pre>
----------	--

Related Commands	Command	Description
	show bootvar log	Displays the accounting log.

clear cdp

To clear Cisco Discovery Protocol (CDP) information, use the **clear cdp** command.

```
clear cdp {counters [interface {ethernet slot-number / port-number [. subinterface-number]}]} |
mgmt 0} | table [interface {ethernet slot-number / port-number [. subinterface-number]}]}
```

Syntax Description

counters	Clears the CDP counters.
interface	(Optional) Clears interfaces.
ethernet	Clears Ethernet interfaces.
<i>slot-number</i>	Slot. The range is from 1 to 66.
<i>port-number</i>	Port number. The range is from 1 to 128.
<i>. sub-interface</i>	(Optional) Subinterface number. The range of values is from 1 to 4094.
mgmt 0	Clears the management 0 interface.
table	Clears the CDP statistics table.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear CDP counters on all interfaces:

```
vsg# clear cdp counters
```

Related Commands

Command	Description
show cdp all	Displays all interfaces that are CDP enabled.
show cdp entry	Displays CDP information.

clear cli

To clear command-line interface (CLI) command history, use the **clear cli** command.

clear cli history

Syntax Description	history	Clears the CLI command history.
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Defaults	None
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the CLI command history: <pre>vsg# clear cli history</pre>
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Related Commands	Command	Description
	show cli history	Displays the CLI command history.

clear cores

To clear the core files, use the **clear cores** command.

```
clear cores [archive file file-name]
```

Syntax Description	archive file	(Optional) Clears the archived core files.
	<i>file-name</i>	Core filename.

Defaults	None
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear all core files: vsg# clear cores
----------	--

Related Commands	Command	Description
	show cores	Displays the core filename.

clear counters

To clear interface loopback counters, use the **clear counters** command.

```
clear counters [interface {all | data | ethernet slot / port [.{sub-interface}]} | loopback
virtual-interface-number | mgmt 0 | port-channel port-channel-number]
```

Syntax Description

interface	(Optional) Clears interface counters.
all	Clears all interface counters.
ethernet	Clears Ethernet interface counters.
<i>slot</i>	Slot. The range is from 1 to 66.
<i>port</i>	Port. The range is from 1 to 128.
<i>sub-interface</i>	(Optional) Subinterface number. The range of values is from 1 to 4094.
loopback	Clears loopback interface counters.
<i>virtual-interface-number</i>	Virtual interface number. The range is from 0 to 1023.
mgmt 0	Clears the management interface.
port-channel	Clears port-channel interfaces.
<i>port-channel-number</i>	Port channel number. The range is from 1 to 4096.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear a counter on a specific Ethernet interface:

```
vsg# clear counters ethernet 2/1
```

Related Commands

Command	Description
show interface counters	Displays the interface status, which includes the counters.

clear debug-logfile

To clear the contents of the debug log, use the **clear debug-logfile** command.

clear debug-logfile *log-name*

Syntax Description	<i>log-name</i>	Name of the debug log.
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Defaults	None
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Command Modes	EXEC Global configuration (config)
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Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the debug log: <pre>vsg# clear debug-logfile syslog_debug</pre>
----------	--

Related Commands	Command	Description
	show debug logfile	Displays the contents of the debug logfile.

clear event-log policy_engine

To clear the event log buffer for the policy engine, use the **clear event-log policy_engine** command.

```
clear event-log policy_engine
```

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(4.1)	This command was introduced.

Examples This example shows how to clear the event logs for the policy engine:

```
vsg# clear event-log policy_engine
```

Related Commands	Command	Description
	event-log policy_engine	Enables logging debugs for the policy engine.

clear event-log service-path

To clear the event-log buffer for the service path, use the **clear event-log service-path** command.

clear event-log service-path

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(4.1)	This command was introduced.

Examples This example shows how to clear the event logs for the service path:

```
vsg# event-log service-path
```

Related Commands	Command	Description
	event-log service-path	Enables logging debugs for the service-path process.

clear frame

To clear Layer 2 traffic statistics, use the **clear frame** command.

clear frame statistics

Syntax Description	statistics Clears Layer 2 traffic statistics.
---------------------------	--

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the Layer 2 traffic statistics: <pre>vsg# clear frame statistics</pre>
-----------------	---

Related Commands	Command	Description
	show vlan	Displays VLAN information.

clear fs-daemon

To clear the file sharing (FS) daemon log, use the **clear fs-daemon** command.

clear fs-daemon log

Syntax Description	log Clears the FS daemon log.
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Defaults	None
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the FS daemon log: <pre>vsg# clear fs-daemon log</pre>
-----------------	---

Related Commands	Command	Description
	show logging	Displays the logging configuration and the contents of the log file.

clear inspect

To clear the File Transfer Protocol (FTP) inspection statistics, use the **clear inspect** command.

clear inspect ftp statistics [**svs-domain-id** *domain-id* **module** *module-number*]

Syntax Description		
ftp statistics		Clears FTP statistics.
svs-domain-id	(Optional)	Clears FTP statistics in the SVS domain.
<i>domain-id</i>		SVS domain ID.
module	(Optional)	Clears FTP statistics on a specific module.
<i>module-number</i>		Module number.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear the FTP inspection statistics:
vsg# **clear inspect ftp statistics svs-domain-id 2 module 63**

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

clear install

To clear the installation log, use the **clear install** command.

```
clear install { all failed-standby | failure-reason | status }
```

Syntax Description		
	all failed-standby	Clears all the installation logs.
	failure-reason	Clears the installation failure reason log.
	status	Clear the installation status log.

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to clear all the installation logs: vsg# clear install all failed-standby

Related Commands	Command	Description
	show install all status	Displays the status of the current or last installation.

clear ip adjacency statistics

To clear IP address adjacency statistics, use the **clear ip adjacency statistics** command.

clear ip adjacency statistics

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear IP adjacency statistics:

```
vsg# clear ip adjacency statistics
```

Related Commands	Command	Description
	show ipv6 adjacency	Displays IP information.

clear ip arp

To clear specific Address Resolution Protocol (ARP) IP address statistics, use the **clear ip arp** command.

```
clear ip arp ip-address [vrf {vrf-name | all | default | management}]
```

Syntax Description		
<i>ip-address</i>		IP address. The format is A.B.C.D.
vrf		Clears all virtual routing and forwarding (VRF) ARP IP address statistics.
<i>vrf-name</i>		VRF name. The range for number of characters is from 1 to 32.
all		Clears all ARP IP address statistics.
default		Clears default VRF ARP IP address statistics.
management		Clears management VRF ARP IP address statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear a specific ARP IP address in EXEC mode:

```
vsg# clear ip arp 209.165.200.229
```

This example shows how to clear a specific ARP IP address in configuration mode:

```
vsg#(config) clear ip arp 209.165.200.229
```

Related Commands	Command	Description
	show ip arp	Displays IP ARP information.

clear ip arp data

To clear Address Resolution Protocol (ARP) IP address statistics on the data 0 interface, use the **clear ip arp data** command.

```
clear ip arp data 0 [vrf {vrf-name | all | default | management}]
```

Syntax Description	0	Description
	0	Clears data 0 interface ARP IP address statistics.
	vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
	<i>vrf-name</i>	VRF name. The range for number of characters is from 1 to 32.
	all	Clears all ARP IP address statistics.
	default	Clears default ARP IP address statistics.
	management	Clears management interface ARP IP address statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all ARP IP address statistics on the data 0 interface:

```
vsg# clear ip arp data 0 all
```

Related Commands	Command	Description
	show ip arp	Displays IP ARP information.

clear ip arp ethernet

To clear Address Resolution Protocol (ARP) IP address statistics on Ethernet interfaces, use the **clear ip arp ethernet** command.

```
clear ip arp ethernet slot-number / port-number [. | vrf vrf-name]
```

Syntax Description		
	<i>slot-number</i>	Slot number.
	<i>port-number</i>	Port number.
	vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
	<i>vrf-name</i>	VRF name. The range for number of characters is from 1 to 32.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear ARP IP address statistics on an Ethernet interface:

```
vsg# clear ip arp ethernet 1 / 1
```

Related Commands	Command	Description
	show ip arp	Displays IP ARP information.

clear ip arp loopback

To clear Address Resolution Protocol (ARP) IP address statistics on loopbacks, use the **clear ip arp loopback** command.

```
clear ip arp loopback loopback-number [vrf vrf-name]
```

Syntax Description		
	<i>loopback-number</i>	Loopback number.
	vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
	<i>vrf-name</i>	VRF name. The range is from 1 to 32.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear ARP IP address statistics on a loopback:

```
vsg# clear ip arp loopback 10
```

Related Commands	Command	Description
	show ip arp	Displays ARP IP address information.

clear ip arp mgmt

To clear Address Resolution Protocol (ARP) IP address statistics on the management interface, use the **clear ip arp mgmt** command.

```
clear ip arp mgmt 0 [vrf {vrf-name} | all | default | management]}
```

Syntax Description	0	Clears management 0 interface ARP IP address statistics.
	vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
	<i>vrf-name</i>	VRF name. The range for the number of characters is from 1 to 32.
	all	Clears all ARP IP address statistics.
	default	Clears default ARP IP address statistics.
	management	Clears management interface ARP IP address statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear ARP IP address statistics on the management interface:

```
vsg# clear ip arp mgmt all
```

Related Commands	Command	Description
	show ip arp	Displays IP ARP information.

clear ip arp port-channel

To clear Address Resolution Protocol (ARP) IP address statistics on port channels, use the **clear ip arp port-channel** command.

```
clear ip arp port-channel port-channel-number [. sub-interface | vrf vrf-name]
```

Syntax Description	
<i>port-channel-number</i>	Port channel number.
<i>sub-interface</i>	(Optional) Subinterface number.
vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
<i>vrf-name</i>	VRF name. The range for the number of characters is from 1 to 32.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear ARP IP address statistics on a port channel:

```
vsg# clear ip arp port-channel 2
```

Related Commands	Command	Description
	show port-channel	Displays port-channel information.

clear ip arp statistics

To clear Address Resolution Protocol (ARP) IP address statistics, use the **clear ip arp statistics** command.

clear ip arp statistics {data 0 | ethernet | loopback | mgmt | port-channel | vrf}

Syntax Description		
data 0		Clears the data 0 interface.
ethernet		Clears the Ethernet interface.
loopback		Clears the loopback interface.
mgmt		Clears the management interface.
port-channel		Clears the port channel interface.
vrf		Clears the virtual routing and forwarding (VRF) interface.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear ARP IP address statistics on data 0:
vsg# **clear ip arp statistics data 0**

Related Commands	Command	Description
	show ip	Displays IP information.

clear ip arp vrf

To clear Address Resolution Protocol (ARP) virtual routing and forwarding (VRF) IP address statistics, use the **clear ip arp vrf** command.

clear ip arp vrf { *vrf-name* | **all** | **default** | **management** }

Syntax Description		
	<i>vrf-name</i>	VRF name. The range for the number of characters is from 1 to 32.
	all	Clears all ARP IP address statistics.
	default	Clears default ARP IP address statistics.
	management	Clears management interface ARP IP address statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear IP ARP VRF IP address statistics:

```
vsg# clear ip arp vrf vrf1
```

Related Commands	Command	Description
	show vrf	Displays VRF information.

clear ip igmp event-history

To clear Internet Group Management Protocol (IGMP) IP address event history entries, use the **clear ip igmp event-history** command.

clear ip igmp event-history {cli | debugs | events | ha | igmp-internal | mtrace | policy | vrf}

Syntax Description	cli	Clears the command-line interface (CLI) IGMP IP address event history entries.
	debugs	Clears debug IGMP IP address event history entries.
	events	Clears events IGMP IP address event history entries.
	ha	Clears high-availability (HA) IGMP IP address event history entries.
	igmp-internal	Clears internal IGMP IP address event history entries.
	mtrace	Clears Mtrace IGMP IP address event history entries.
	policy	Clears policy IGMP IP address event history entries.
	vrf	Clears virtual routing and forwarding (VRF) IGMP IP address event history entries.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear HA IGMP IP address event history entries:

```
vsg# clear ip igmp event-history ha
```

Related Commands	Command	Description
	show ip igmp	Displays the IGMP status and the IGMP configuration.

clear ip igmp snooping

To clear Internet Group Management Protocol (IGMP) IP address snooping entries, use the **clear ip igmp snooping** command.

```
clear ip igmp snooping { event-history [VPC | igmp-snoop-internal | mfdm | mfdm-sum | vlan | vlan-events] | explicit-tracking vlan vlan-id | statistics vlan [vlan-id | all] }
```

Syntax Description		
event-history		Clears event history IGMP IP address snooping entries.
VPC		(Optional) Clears virtual port channel (vPC) IGMP IP address snooping entries.
igmp-snoop-internal		(Optional) Clears internal IGMP IP address snooping entries.
mfdm		(Optional) Clears MFDM IGMP IP address snooping entries.
mfdm-sum		(Optional) Clears MFDM-sum IGMP IP address snooping entries.
vlan		(Optional) Clears VLAN IGMP IP address snooping entries.
vlan-events		(Optional) Clears VLAN event IGMP IP address snooping entries.
explicit-tracking		Clears explicit tracking IGMP IP address snooping entries.
<i>vlan-id</i>		(Optional) VLAN identification number. The range is from 1 to 3967 or 4048 to 4093.
statistics vlan		Clears VLAN statistical IGMP IP address snooping entries.
all		(Optional) Clears all IGMP IP address snooping entries.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all IGMP IP address snooping entries:

```
vsg# clear ip igmp snooping all
```

Related Commands

Command	Description
show ip igmp	Displays the IGMP status and configuration.

clear ip interface

To clear IP address statistics on interfaces, use the **clear ip interface** command.

```
clear ip interface statistics [data 0 | ethernet slot-number / port-number [. sub-interface-number]
| loopback loopback-number | mgmt | port-channel port-channel-number
[. sub-interface-number]]
```

Syntax Description		
statistics		Clears IP address statistics on interfaces.
data 0		(Optional) Clears IP address statistics on the data 0 interface.
ethernet		(Optional) Clears IP address statistics on Ethernet interfaces.
<i>slot-number</i>		Slot number. The range is from 1 to 66.
<i>port-number</i>		Port number. The range is from 1 to 128.
<i>subinterface-number</i>		(Optional) Subinterface number. The range is 1 to 4094.
loopback		(Optional) Clears IP address statistics on the loopback interface.
<i>loopback-number</i>		Loopback number. The range is from 0 to 123.
mgmt 0		(Optional) Clears IP address statistics on the management 0 interface.
port-channel		(Optional) Clears IP address statistics on the port-channel interface.
<i>port-channel-number</i>		Port-channel number. The range is from 1 to 4096.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear IP address statistics on an Ethernet interface:

```
vsg# clear ip interface statistics ethernet 1 / 2
```

Related Commands	Command	Description
	show ip interface	Displays IP interface information.

clear ip route

To clear IP routing information, use the **clear ip route** command.

```
clear ip route { * | A.B.C.D [A.B.C.D { data 0 | ethernet slot / port | loopback loopback-number | port-channel portchannel-number } ] | A.B.C.D/LEN [A.B.C.D { data 0 | ethernet slot / port | loopback loopback-number | port-channel portchannel-number } ] | vrf { vrf-name | default | management 0 } }
```

Syntax Description		
*		Clears all IP routing information.
A.B.C.D		Clears IP routing information at a specific IP address.
data 0		Clears IP routing information on the management 0 interface.
ethernet slot / port		Clears IP routing information on a specific Ethernet interface.
loopback		Clears IP routing information on the loopback interface.
<i>loopback-number</i>		Loopback number. The range is from 0 to 1023.
port-channel		Clears IP routing information on the port channel.
<i>portchannel-number</i>		Port-channel number. The range is from 1 to 4096.
A.B.C.D/LEN		Clears IP routing information at a specific IP address.
vrf		Clears IP routing information for a VRF.
<i>vrf-name</i>		Virtual forwarding and routing (VRF) name. The range for the number of characters is from 1 to 32.
default		Clears default IP routing information.
management 0		Clears IP routing information on the management 0 interface.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all IP routing information:
vsg# **clear ip route ***

■ clear ip route

Related Commands	Command	Description
	show routing	Displays routes.

clear ip traffic

To clear global IP statistics, use the **clear ip traffic** command.

```
clear ip traffic [vrf {vrf-name | default | management}]
```

Syntax Description	Field	Description
	vrf	Clears virtual routing and forwarding (VRF) global IP address statistics.
	<i>vrf-name</i>	VRF name. The range for the number of characters is from 1 to 32.
	default	Clears default global IP address statistics.
	management	Clears management global IP address statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear global IP statistics:
vsg# **clear ip traffic**

Related Commands	Command	Description
	show ip traffic	Displays IP traffic information.

clear ipv6 adjacency statistics

To clear IPv6 address adjacency statistics, use the **clear ipv6 adjacency statistics** command.

clear ipv6 adjacency statistics

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear IPv6 address adjacency statistics:

```
vsg# clear ipv6 adjacency statistics
```

Related Commands	Command	Description
	show ipv6 adjacency	Displays IPv6 statistics.

clear ipv6 icmp interface statistics

To clear Internet Control Management Protocol (ICMP) IPv6 interface statistics, use the **clear ipv6 icmp interface statistics** command.

```
clear ipv6 icmp interface statistics [data 0 | ethernet slot-number / port-number
[. sub-interface-number] | loopback virtual-interface-number | port-channel
port-channel-number [. sub-interface-number] ]
```

Syntax Description		
data 0	(Optional)	Clears the data 0 interface.
ethernet	(Optional)	Clears the Ethernet interface.
<i>slot-number</i>		Ethernet slot number. The range is from 1 to 66.
<i>/</i>		Slot number port number separator.
<i>port-number</i>		Ethernet port number. The range is from 1 to 128.
<i>.</i>		Port number subinterface number separator.
<i>sub-interface-number</i>	(Optional)	Subinterface number. The range is from 1 to 4094.
loopback	(Optional)	Clears the loopback interface.
<i>virtual-interface-number</i>		Virtual interface number. The range is from 0 to 1023.
port-channel	(Optional)	Clears the port-channel interface.
<i>port-channel-number</i>		Port-channel number. The range is from 1 to 4096.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear ICMP IPv6 Ethernet interface statistics:

```
vsg# clear ipv6 icmp interface statistics ethernet 1 / 2 . 3
```

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 icmp mld groups

To clear Internet Control Message Protocol (ICMP) Multicast Listener Discovery (MLD) group IPv6 statistics, use the **clear ipv6 icmp mld groups** command.

```
clear ipv6 icmp mld groups { * [vrf {vrf-name | all | default | management}] | A:B::C:D |
A:B::C:D/LEN }
```

Syntax Description		
*		Clears all routes.
vrf		(Optional) Clears ICMP MLD virtual routing and forwarding (VRF) IPv6 routes.
vrf-name		VRF name. The range for the number of characters is from 1 to 32.
all		(Optional) Clears all routing information.
default		(Optional) Clears default routing information.
management		(Optional) Clears management routing information.
A:B::C:D		Clears a specific IPv6 address.
A:B::C:D/LEN		Clears a specific IPv6 address.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all ICMP MLD group IPv6 statistics:

```
vsg# clear ipv6 icmp mld groups *
```

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 icmp mld route

To clear Internet Control Message Protocol (ICMP) Multicast Listener Discovery (MLD) routes, use the `clear ipv6 icmp mld route` command.

```
clear ipv6 icmp mld route { * [vrf {vrf-name | all | default | management}] | A:B::C:D |
A:B::C:D/LEN }
```

Syntax Description		
*		Clears all routes.
vrf		(Optional) Clears ICMP MLD virtual routing and forwarding (VRF) IPv6 routes.
vrf-name		VRF name. The range for the number of characters is from 1 to 32.
all		Clears all routing information.
default		Clears default routing information.
management		Clears management routing information.
A:B::C:D		Clears a specific ICMP MLD IPv6 route.
A:B::C:D/LEN		Clears a specific ICMP MLD IPv6 route.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all IPv6 ICMP MLD routes:

```
vsg# clear ipv6 icmp mld route *
```

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 nd interface statistics

To clear Neighbor Discovery (ND) IPv6 interface statistics, use the **clear ipv6 nd interface statistics** command.

```
clear ipv6 nd interface statistics [data 0 | ethernet slot-number / port-number
[. sub-interface-number] | loopback virtual-interface-number | port-channel
port-channel-number [. sub-interface-number] ]
```

Syntax Description		
data 0	(Optional) Clears the data 0 interface.	
ethernet	(Optional) Clears the Ethernet interface.	
<i>slot-number</i>	Ethernet slot number. The range is from 1 to 66.	
/	Slot number port number separator.	
<i>port-number</i>	Ethernet port number. The range is from 1 to 128.	
.	Port number subinterface number separator.	
<i>sub-interface-number</i>	(Optional) Subinterface number. The range is from 1 to 4094.	
loopback	(Optional) Clears the loopback interface.	
<i>virtual-interface-number</i>	Virtual interface number. The range is from 0 to 1023.	
port-channel	(Optional) Clears the port-channel interface.	
<i>port-channel-number</i>	Port-channel number. The range is from 1 to 4096.	

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear IPv6 ND interface statistics:

```
vsg# clear ipv6 nd interface statistics ethernet 2 / 3 . 4
```

Related Commands	Command	Description
	show ipv6 nd	Displays Neighbor Discovery interface statistics.

clear line

To end a session on a specified Virtual Teletype (VTY), use the **clear line** command.

clear line *vtty-name*

Syntax Description	<i>vtty-name</i> VTY name. The range for the number of characters is from 1 to 64.
---------------------------	--

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to end a session on a specified VTY: vsg# clear line VTY100
-----------------	--

Related Commands	Command	Description
	show users	Displays active user sessions.

clear logging

To clear logfile messages and logging sessions, use the **clear logging** command.

```
clear logging {logfile | session}
```

Syntax Description		
	logfile	Clears log file messages.
	session	Clears logging sessions.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear messages from the logging file:

```
vsg# clear logging logfile
```

Related Commands	Command	Description
	show logging logfile	Displays the contents of the log file.

clear ntp

To clear the Network Time Protocol (NTP) sessions and statistics, use the **clear ntp** command.

```
clear ntp {session | statistics {all-peers | io | local | memory}}
```

Syntax Description		
	session	Clears NTP sessions.
	statistics	Clears NTP statistics.
	all-peers	Clears all statistics.
	io	Clears IO statistics.
	local	Clears local statistics.
	memory	Clears memory statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all NTP statistics:
vsg# **clear ntp statistics all-peers**

Related Commands	Command	Description
	show ntp peers	Displays information about NTP peers.

clear nvram

To clear the nonvolatile RAM (NVRAM), use the **clear nvram** command.

clear nvram

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear the NVRAM:

```
vsg# clear nvram
```

Related Commands	Command	Description
	show system resources	Displays system resources.

clear pktmgr client

To clear packet manager client counters, use the **clear pktmgr client** command.

```
clear pktmgr client [client-counter-uuid]
```

Syntax Description	<i>client-counter-uuid</i> (Optional) Client counter user identification. The range is from 0 to 4294967295.
---------------------------	--

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear a packet manager client counter: <pre>vsg# clear pktmgr client 100</pre>
-----------------	--

Related Commands	Command	Description
	clear routing	Clears routing information.

clear pktmgr interface

To clear packet manager interface information, use the **clear pktmgr interface** command.

```
clear pktmgr interface [data 0 | ethernet slot-number / port-number [. sub-interface-number] |
loopback virtual-interface-number | mgmt 0 | port-channel [. sub-interface-number]]
```

Syntax	Description
data 0	(Optional) Clears the data 0 interface.
ethernet	(Optional) Clears the Ethernet interface.
<i>slot-number</i>	Ethernet slot number. The range is from 1 to 66.
<i>/</i>	Slot-number port-number separator.
<i>port-number</i>	Ethernet port number. The range is from 1 to 128.
<i>.</i>	Port-number subinterface number separator.
<i>sub-interface-number</i>	Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears the loopback interface.
<i>virtual-interface-number</i>	Virtual interface number. The range is from 0 to 1023.
port-channel	(Optional) Clears the port-channel interface.
<i>port-channel-number</i>	Port-channel number. The range is from 1 to 4096.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear packet manager interface information:

```
vsg# clear pktmgr interface ethernet 10 / 11 . 12
```

Related Commands	Command	Description
	clear pktmgr client	Clears the packet manager client.

clear policy-engine

To clear policy engine statistics, use the **clear policy-engine** command.

```
clear policy-engine {policy-name stats | stats}
```

Syntax Description		
	<i>policy-name</i>	Policy engine name.
	stats	Clears policy engine statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear policy engine statistics:
vsg# **clear policy-engine stats**

Related Commands	Command	Description
	show policy-engine	Displays the policy engine.

clear processes

To clear process logs, use the **clear processes** command.

```
clear processes {log {all | archive [archive-name] | pid pid-number} | vdc vdc-name {all | pid
pid-number}}
```

Syntax Description

log	Clears process logs.
all	Clears all process logs.
archive	Clears archived process logs.
<i>archive-name</i>	(Optional) Archive name.
pid	Clears the process log for a specific process.
<i>pid-number</i>	PID number.
vdc	Clears process logs for a specific Cisco VSG.
<i>vdc-name</i>	VDC name.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear all process logs:

```
vsg# clear processes log all
```

Related Commands

Command	Description
show processes	Displays all processes.

clear rmon

To clear Remote Monitoring (RMON) logs, use the **clear rmon** command.

```
clear rmon {alarms | all-alarms | events | hcalarms}
```

Syntax Description		
	alarms	Clears RMON alarms.
	all-alarms	Clears all RMON alarms.
	events	Clears RMON events.
	hcalarms	Clears HC RMON alarms.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear RMON alarms:
vsg# **clear rmon alarms**

Related Commands	Command	Description
	show rmon	Displays RMON information.

clear role

To clear role session information, use the **clear role** command.

clear role session

Syntax Description	session	Clears the role session information.
---------------------------	----------------	--------------------------------------

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear role session information: <pre>vsg# clear role session</pre>
-----------------	---

Related Commands	Command	Description
	show role	Displays role information.

clear routing

To clear IP routes, use the **clear routing** command.

```
clear routing [* | A.B.C.D [A.B.C.D {data 0 | ethernet slot-number / port-number
[.sub-interface-number]} | loopback virtual-interface-number | port-channel
port-channel-number]} | A.B.C.D/LEN [A.B.C.D {data 0 | ethernet slot-number /
port-number [.sub-interface-number]} | loopback virtual-interface-number | port-channel
port-channel-number}]
```

Syntax Description		
*		Clears all routes.
A.B.C.D		Clears a specific IP route.
A.B.C.D/LEN		Clears an IP route and subnets.
data 0	(Optional)	Clears routing on the data 0 interface.
ethernet	(Optional)	Clears routing on Ethernet interfaces.
<i>slot-number</i>		Slot number. The range is from 1 to 66.
/		Slot and port number separator.
<i>port-number</i>		Port number. The range is from 1 to 128.
.	(Optional)	Subinterface separator.
<i>subinterface-number</i>		Subinterface number. The range is from 1 to 4094.
loopback	(Optional)	Clears routing on the loopback interface.
<i>virtual-interface-number</i>		Loopback number. The range is from 0 to 123.
port-channel	(Optional)	Clears routing on the port-channel interface.
<i>port-channel-number</i>		Port-channel number. The range is from 1 to 4096.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all routes:
vsg# **clear routing ***

clear routing

Clearing ALL routes

This example shows how to clear routes on the data 0 interface:

```
vsg# clear routing 209.165.200.228 data 0
```

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing event-history

To clear routing event histories, use the **clear routing event-history** command.

clear routing event-history {**add-route** | **cli** | **delete-route** | **errors** | **general** | **loop-detection** | **modify-route** | **notifications** | **recursive-next-hop** | **summary** | **udfm** | **udfm-summary**}

Syntax Description		
add-route		Clears the added routes event history.
cli		Clears the command-line interface (CLI) routing event history.
delete-route		Clears the deleted routes event history.
errors		Clears the error routes event history.
general		Clears the general routes event history.
loop-detection		Clears the loop-detection routes event history.
modify-route		Clears the modified routes event history.
notifications		Clears the notification routes event history.
recursive-next-hop		Clears the recursive-next-hop routing event history.
summary		Clears the summary routing event history.
udfm		Clears the UDFM routing event history.
udfm-summary		Clears the UDFM summary routing event history.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear the loop-detection routes event history:

```
vsg# clear routing event-history loop-detection
```

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing ip

To clear IP routing statistics, use the **clear routing ip** command.

```
clear routing ip [* | A.B.C.D [A.B.C.D {data 0 | ethernet slot-number / port-number
[.sub-interface-number]} | loopback virtual-interface-number | port-channel
port-channel-number]} | A.B.C.D/LEN [A.B.C.D {data 0 | ethernet slot-number /
port-number [.sub-interface-number]} | loopback virtual-interface-number | port-channel
port-channel-number}]
```

Syntax Description

*	Clears routing statistics for all routes.
A.B.C.D	Clears routing statistics for a specific IP route.
A.B.C.D/LEN	Clears routing statistics for an IP route and subnets.
data 0	(Optional) Clears the data 0 interface.
ethernet	(Optional) Clears the Ethernet interface.
<i>slot-number</i>	Ethernet slot number. The range is from 1 to 66.
/	Slot number port number separator.
<i>port-number</i>	Ethernet port number. The range is from 1 to 128.
.	Port number subinterface number separator.
<i>sub-interface-number</i>	Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears the loopback interface.
<i>virtual-interface-number</i>	Virtual interface number. The range is from 0 to 1023.
port-channel	(Optional) Clears the port-channel interface.
<i>port-channel-number</i>	Port-channel number. The range is from 1 to 4096.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear all IP routes:

```
vsg# clear routing ip *
```

This example shows how to clear IP routes on slot 2, port 3:

```
vsg# clear routing ip ethernet 2 / 3
```

This example shows how to clear IP routes:

```
vsg# clear routing ip 209.165.200.228
```

Related Commands

Command	Description
<code>show routing</code>	Displays the IP route table.

clear routing ip event-history

To clear routing event histories, use the **clear routing ip event-history** command.

```
clear routing ip event-history {add-route | cli | delete-route | errors | general | loop-detection |
modify-route | notifications | recursive-next-hop | summary | udfm | udfm-summary}
```

Syntax	Description
add-route	Clears the added routes event history.
cli	Clears the command-line interface (CLI) routing event history.
delete-route	Clears the deleted routes event history.
errors	Clears the error routes event history.
general	Clears the general routes event history.
loop-detection	Clears the loop-detection routes event history.
modify-route	Clears the modified routes event history.
notifications	Clears the notification routes event history.
recursive-next-hop	Clears the recursive-next-hop routing event history.
summary	Clears the summary routing event history.
udfm	Clears the UDFM routing event history.
udfm-summary	Clears the UDFM summary routing event history.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear the notifications routes event history:

```
vsg# clear routing ip event-history notifications
```

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing ip unicast

To clear unicast routing entries, use the **clear routing ip unicast** command.

```
clear routing ip unicast { * | A.B.C.D | A.B.C.D/LEN | event-history }
```

Syntax Description		
	*	Clears all IP unicast routes.
	A.B.C.D	Clears a specific IP unicast route.
	A.B.C.D/LEN	Clears a specific IP unicast route and subnets.
	event-history	Clears the IP unicast event history.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all IP unicast routes:
vsg# **clear routing ip unicast ***

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing ipv4

To clear IPv4 route entries, use the **clear routing ipv4** command.

```
clear routing ipv4 { * | A.B.C.D | A.B.C.D/LEN | event-history | unicast }
```

Syntax Description		
	*	Clears all IPv4 routes.
	A.B.C.D	Clears a specific IPv4 route.
	A.B.C.D/LEN	Clears a specific IPv4 route and subnets.
	event-history	Clears the IPv4 routing event history.
	unicast	Clears IPv4 unicast routes.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear all IPv4 routes: vsg# clear routing ipv4 *
----------	--

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing ipv6

To clear IPv6 route entries, use the **clear routing ipv6** command.

```
clear routing ipv6 { * | A:B::C:D | A:B::C:D/LEN | event-history | unicast }
```

Syntax Description		
	*	Clears all IPv6 routes.
	A:B::C:D	Clears a specific IPv6 route.
	A:B::C:D/LEN	Clears a specific IPv6 route and subnets.
	event-history	Clears the IPv6 routing event history.
	unicast	Clears IPv6 unicast routes.

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to clear all IPv6 routes: vsg# clear routing ipv6 *

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing vrf

To clear virtual routing and forwarding (VRF) routes, use the **clear routing vrf** command.

clear routing vrf *vrf-name*

Syntax Description	<i>vrf-name</i>	VRF name. The range for the number of characters is from 1 to 32.
---------------------------	-----------------	---

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear VRF routes: <pre>vsg# clear routing vrf vrfTest</pre>
-----------------	--

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing vrf default

To clear virtual routing and forwarding (VRF) routes, use the **clear routing vrf default** command.

```
clear routing vrf default { * | A.B.C.D | A.B.C.D/LEN | ip | ipv4 | ipv6 | unicast }
```

Syntax Description		
*		Clears all VRF routes.
A.B.C.D		Clears a specific VRF route.
A.B.C.D/LEN		Clears a specific VRF route.
ip		Clears IP VRF routes.
ipv4		Clears IPv4 VRF routes.
ipv6		Clears IPv6 VRF routes.
unicast		Clears unicast VRF routes.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear VRF routes:

```
vsg# clear routing vrf default *
```

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing vrf management *

To clear all virtual routing and forwarding (VRF) management routes, use the **clear routing vrf management *** command.

clear routing vrf management *

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear all VRF management routes:

```
vsg# clear routing vrf management *
```

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing vrf management

To clear specific virtual routing and forwarding (VRF) management routes, use the **clear routing vrf management** command.

```
clear routing vrf management ip-address [ip-address {data 0 | ethernet slot-number /
port-number [. sub-interface] | loopback loopback-number | port-channel port-number [.
sub-interface]}]
```

Syntax Description		
<i>ip-address</i>		IP address.
data 0		Clears VRF management routes.
ethernet		Clears VRF management routes on Ethernet ports.
<i>slot-number</i>		Ethernet port slot number.
/		Slot and port separator.
<i>port-number</i>		Ethernet port number.
. <i>sub-interface</i>		(Optional) Ethernet subinterface.
loopback		Clears VRF management routes on a loopback.
<i>loopback-number</i>		Loopback number.
port-channel		Clears VRF management routes on a port channel.
<i>port-number</i>		Port-channel number.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear a specific set of Ethernet routes:

```
vsg# clear routing vrf management 209.165.200.226 209.165.200.236 ethernet 2 / 4
```

Related Commands	Command	Description
	show routing	Displays the IP route table.

clear routing vrf management ip

To clear virtual routing and forwarding (VRF) IP management routes, use the **clear routing vrf management ip** command.

```
clear routing vrf management ip {* | A.B.C.D [A.B.C.D {data 0 | ethernet slot-number /
port-number [. sub-interface] | loopback loopback-number | port-channel port-number [.
sub-interface}}} | A.B.C.D/LEN [A.B.C.D {data 0 | ethernet slot-number / port-number [.
sub-interface] | loopback loopback-number | port-channel port-number [. sub-interface}}} |
unicast [A.B.C.D {data 0 | ethernet slot-number / port-number [. sub-interface] | loopback
loopback-number | port-channel port-number [. sub-interface}}}]
```

Syntax Description		
*		Clears all IP routes.
A.B.C.D		(Optional) Clears a specific VRF management IP route.
data 0		Clears VRF management IP routes.
ethernet		Clears VRF management IP routes on Ethernet ports.
slot-number		Ethernet port slot number.
/		Slot number and port number separator.
port-number		Ethernet port number.
.		Subinterface separator.
sub-interface		(Optional) Ethernet subinterface.
loopback		Clears VRF management IP routes on a loopback.
loopback-number		Loopback number.
port-channel		Clears VRF management IP routes on a port channel.
port-number		Port-channel number.
unicast		Clears unicast IP routes.

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear all IP unicast routes:

```
vsg# clear routing vrf management ip unicast *
```

Related Commands

Command	Description
<code>show routing</code>	Displays the IP route table.

clear routing vrf management ipv4

To clear IPv4 virtual routing and forwarding (VRF) management routes, use the **clear routing vrf management ipv4** command.

```
clear routing vrf management ipv4 { * | A.B.C.D [A.B.C.D { data 0 | ethernet slot-number /
port-number [. sub-interface] | loopback loopback-number | port-channel port-number [.
sub-interface]] | A.B.C.D/LEN [A.B.C.D { data 0 | ethernet slot-number / port-number [.
sub-interface] | loopback loopback-number | port-channel port-number [. sub-interface]] } |
unicast [A.B.C.D { data 0 | ethernet slot-number / port-number [. sub-interface] | loopback
loopback-number | port-channel port-number [. sub-interface]] }
```

Syntax Description		
*		Clears all IPv4 routes.
A.B.C.D		Clears a specific VRF management IPv4 route.
data 0		Clears VRF management IPv4 routes.
ethernet		Clears VRF management IPv4 routes on Ethernet ports.
slot-number		Ethernet port slot number.
/		Slot number and port number separator.
port-number		Ethernet port number.
.		Subinterface separator.
sub-interface		Ethernet subinterface.
loopback		(Optional) Clears VRF management IPv4 routes on a loopback.
loopback-number		Loopback number.
port-channel		Clears VRF management IPv4 routes on a port channel.
port-number		Port-channel number.
unicast		Clears unicast IP routes.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear an IPv4 VRF management route:

```
vsg# clear routing vrf management ipv4 209:165::200:229
```

Related Commands

Command	Description
<code>show routing</code>	Displays the IP route table.

clear routing vrf management ipv6

To clear IPv6 virtual routing and forwarding (VRF) management routes, use the **clear routing vrf management ipv6** command.

```
clear routing vrf management ipv6 { * | A.B.C.D [A.B.C.D { data 0 | ethernet slot-number /
port-number [. sub-interface] | loopback loopback-number | port-channel port-number [.
sub-interface]] | A.B.C.D/LEN [A.B.C.D { data 0 | ethernet slot-number / port-number [.
sub-interface] | loopback loopback-number | port-channel port-number [. sub-interface]] } |
unicast [A.B.C.D { data 0 | ethernet slot-number / port-number [. sub-interface] | loopback
loopback-number | port-channel port-number [. sub-interface]] }
```

Syntax Description		
*		Clears all IPv6 routes.
A.B.C.D		Clears a specific IPv6 route.
data 0		Clears VRF management IPv6 routes.
ethernet		Clears VRF management IPv6 routes on Ethernet ports.
slot-number		Ethernet port slot number.
/		Slot number and port number separator.
port-number		Ethernet port number.
.		Subinterface separator.
sub-interface		Ethernet subinterface.
loopback		(Optional) Clears VRF management IPv6 routes on a loopback.
loopback-number		Loopback number.
port-channel		Clears VRF management IPv6 routes on a port channel.
port-number		Port-channel number.
unicast		Clears unicast IP routes.

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear an IPv6 VRF management route:

```
vsg# clear routing vrf management ipv6 209:165::200:225
```

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing vrf management unicast

To clear unicast virtual routing and forwarding (VRF) management routes, use the **clear routing vrf management unicast** command.

```
clear routing vrf management unicast { * | A.B.C.D [A.B.C.D { data 0 | ethernet slot-number / port-number [. sub-interface] | loopback loopback-number | port-channel port-number [. sub-interface]}] | A.B.C.D/LEN [A.B.C.D { data 0 | ethernet slot-number / port-number [. sub-interface] | loopback loopback-number | port-channel port-number [. sub-interface]}]}
```

Syntax Description

*	Clears all unicast routes.
A.B.C.D	Clears a specific VRF management unicast route.
data 0	Clears VRF management unicast routes.
ethernet	Clears VRF management unicast routes on Ethernet ports.
<i>slot-number</i>	Ethernet port slot number.
/	Slot number and port number separator.
<i>port-number</i>	Ethernet port number.
.	Subinterface separator.
<i>sub-interface</i>	Ethernet subinterface.
loopback	Clears VRF management unicast routes on a loopback.
<i>loopback-number</i>	Loopback number.
port-channel	Clears VRF management unicast routes on a port channel.
<i>port-number</i>	Port-channel number.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear a specific unicast route:

```
vsg# clear routing vrf management unicast 209.165.200.225
```

Related Commands

Command	Description
show routing	Displays the IP route table.

clear scheduler

To clear the scheduler log, use the **clear scheduler** command.

clear scheduler logfile

Syntax Description	logfile	Clears the scheduler log.
--------------------	---------	---------------------------

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear the scheduler log file: <pre>vsg# clear scheduler logfile</pre>
----------	--

Related Commands	Command	Description
	show scheduler logfile	Displays the scheduler log file.

clear screen

To clear the screen, use the **clear screen** command.

clear screen

Syntax Description This command has no key words or arguments.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear the screen:

```
vsg# clear screen
```

Related Commands	Command	Description
	show terminal	Displays terminal configuration parameters.

clear service-path

To clear service path information, use the **clear service-path** command.

```
clear service-path {connection | statistics [svs-domain-id id module module-number]}
```

Syntax Description

connection	Clears all the connection entries in the flow table.
statistics	Clears service path statistics.
svs-domain-id	(Optional) Clears the SVS domain identification number.
<i>id</i>	DVS domain identification number.
module	(Optional) Clears module information.
<i>module-number</i>	Module number.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear service path statistics:

```
vsg# clear service-path statistics
```

Related Commands

Command	Description
show service-path statistics	Displays service path statistics.

clear snmp

To clear Simple Network Management Protocol (SNMP) information, use the **clear snmp** command.

```
clear snmp {counters | hostconfig}
```

Syntax Description	counters	Clears the SNMP counters.
	hostconfig	Clears the SNMP host list.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear SNMP counters:
vsg# **clear snmp counters**

Related Commands	Command	Description
	show snmp community	Displays SNMP community strings.

clear sockets

To clear socket statistics, use the **clear sockets** command.

```
clear sockets {all | raw | raw6 | tcp | tcp6 | udp | udp6}
```

Syntax Description	all	Clears all socket statistics.
	raw	Clears RAW v4 statistics.
	raw6	Clears RAW v6 statistics.
	tcp	Clears TCP v4 statistics.
	tcp6	Clears TCP v6 statistics.
	udp	Clears UDP v4 statistics.
	udp6	Clears UDP v6 statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear socket statistics:

```
vsg# clear sockets all
```

Related Commands	Command	Description
	show sockets statistics	Displays TCP socket statistics.

clear ssh

To clear the Secure Shell (SSH) host session, use the **clear ssh** command.

clear ssh hosts

Syntax Description	hosts	Clears the SSH host session.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Examples	This example shows how to clear all SSH host sessions: vsg# clear ssh hosts	
Related Commands	Command	Description
	show ssh	Displays SSH information.

clear system internal ac application

To clear application containers, use the **clear system internal ac application** command.

clear system internal ac application *application-name* **instance** *instance-number* [**fe** *fe-name*]

Syntax Description	
<i>application-name</i>	Application container name.
instance	Clears the application container instance.
<i>instance-number</i>	Application container instance number.
fe	(Optional) Clears the functional element.
<i>fe-name</i>	Functional element name.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear an application container:
vsg# **clear system internal ac application core instance 1**

Related Commands	Command	Description
	show system internal ac application	Displays application container information.

clear system internal ac ipc-stats

To clear application container Instructions per Cycle (IPC) statistics, use the **clear system internal ac ipc-stats** command.

```
clear system internal ac ipc-stats fe {attribute-manager | inspection-ftp | inspection-rsh |
inspection-tftp | service-path }
```

Syntax Description	fe	Clears the functional element.
	attribute-manager	Clears the attribute manager FE.
	inspection-ftp	Clears the inspection FTP FE.
	inspection-rsh	Clears the inspection remote shell (RSH) FE.
	inspection-tftp	Clears the inspection TFTP FE.
	service-path	Clears the service path FE.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear application container IPC statistics:
vsg# **clear system internal ac ipc-stats**

Related Commands	Command	Description
	show system internal ac application	Displays application container information.

clear user

To clear a user session, use the **clear user** command.

```
clear user user-id
```

Syntax Description	<i>user-id</i>	User identification number.
--------------------	----------------	-----------------------------

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to clear a user session: <pre>vsg# clear user user1</pre>
----------	--

Related Commands	Command	Description
	show users	Displays user session information.

cli

To define a command-line interface (CLI) variable for a terminal session, use the **cli** command. To remove the CLI variable, use the **no** form of this command.

cli var name *variable-name variable-text*

cli no var name *variable-name*

Syntax Description		
	<i>variable-name</i>	Variable name. The name is alphanumeric, case sensitive, and has a maximum of 31 characters.
	<i>variable-text</i>	Variable text. The text is alphanumeric, can contain spaces, and has a maximum of 200 characters.

Defaults None

Command Modes EXEC

Supported User Roles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines You can reference a CLI variable using the following syntax:

`$(variable-name)`

Instances where you can use variables are as follows:

- Command scripts
- Filenames

You cannot reference a variable in the definition of another variable.

You can use the predefined variable, `TIMESTAMP`, to insert the time of day. You cannot change or remove the `TIMESTAMP` CLI variable.

You must remove a CLI variable before you can change its definition.

Examples This example shows how to define a CLI variable:

```
vsg# cli var name testinterface interface 2/3
```

This example shows how to reference the `TIMESTAMP` variable:

```
vsg# copy running-config > bootflash:run-config-$(TIMESTAMP).cnfg
```

This example shows how to remove a CLI variable:

```
vsg# cli no var name testinterface interface 2/3
```

Related Commands

Command	Description
<code>show cli variables</code>	Displays the CLI variables.

clock set

To manually set the clock, use the **clock set** command.

clock set *time day month year*

Syntax Description		
<i>time</i>		Time of the day. The format is <i>HH:MM:SS</i> .
<i>day</i>		Day of the month. The range is from 1 to 31.
<i>month</i>		Month of the year. The values are January, February, March, April, May, June, July, August, September, October, November, or December .
<i>year</i>		Year. The range is from 2000 to 2030.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Use the **clock set** command when you cannot synchronize your device with an outside clock source, such as a Network Time Protocol (NTP) server.

Examples This example shows how to manually set the clock:
vsg# **clock set 9:00:00 29 January 2011**

Related Commands	Command	Description
	show clock	Displays the clock time.

condition

To specify a condition statement used in a rule or zone, use the **condition** command. To remove the condition statement for a rule or zone, use the **no** form of this command.

```
condition attribute-name {eq | neq | gt | lt | prefix | contains | in-range | member-of | not-in-range
| not-member-of} attribute-value1 [attribute-value2]
```

Syntax Description

<i>attribute-name</i>	Name of the attribute for the rule object.
eq	Specifies equal to a number or exactly matched with a string.
neq	Specifies not equal to a number or not exactly matched with a string.
gt	Specifies greater than.
lt	Specifies less than.
prefix	Specifies a prefix of a string or an IP address.
contains	Specifies contains a substring.
in-range	Specifies a range of two integers, dates, times, or IP addresses.
member-of	Specifies a member of an object group.
not-in-range	Specifies negation of the in-range operator.
not-member-of	Specifies negation of the member.
<i>attribute-value1</i>	Value of an attribute (for example, 10.10.10.1) or name of an object-group (for example, "ipaddr-group").
<i>attribute-value2</i>	(Optional) Value of an attribute or the netmask of a network address.

Command Default

None

Command Modes

Rule configuration (config-rule)
Zone configuration (config-zone)

Supported User Roles

network-admin

Command History

Release	Modification
4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines

Use the **condition** command to specify a condition statement that is used in a rule. Each condition statement supports one of the Virtual Machine (VM), zone, network, or environment attributes. When multiple condition statements are used in a rule, all conditions are considered to be AND'd during a policy evaluation.

The following operators must have at least two attribute values:

- **prefix**—When applied against an IP address (for example, **prefix** 10.10.10.1 255.255.255.0)
- **in-range**—For all types of attribute values (for example, **range** 10.10.10.1 10.10.10.200)
- **not-in-range**—For all types of attribute values (for example, **not-in-range** 10.10.10.1 10.10.10.200)

Attribute values can be any of the following:

- Integer
- Integer range
- IP address and a netmask
- IP address range
- String
- Name of an object-group



Note

- Attributes used in rule conditions are mostly directional attributes.
- Attributes used in zone conditions are all neutral attributes.

Examples

This example shows how to set up conditions for a web server zone:

```
VSG(config)# zone web_servers
VSG(config-zone)# condition 1 net.ip-address range 10.10.1.1 10.10.1.20
VSG(config-zone)# exit
```

This example shows how to set up conditions for an app server zone:

```
VSG(config)# zone app_servers
VSG(config-zone)# condition 1 net.ip-address range 10.10.1.21 10.10.1.40
VSG(config-zone)# exit
```

This example shows how to set up conditions for a database server zone:

```
VSG(config)# zone db_servers
VSG(config-zone)# condition 1 net.ip-address range 10.10.1.41 10.10.1.60
VSG(config-zone)# exit
```

Related Commands

Command	Description
rule	Enters the rule configuration submenu.
zone	Enters the zone configuration submenu.

cond-match-criteria

To specify the condition match criteria for a rule or zone, use the **cond-match-criteria** command.

cond-match-criteria { **match-all** | **match-any** }

Syntax Description	match-all	match-any
	Specifies that all conditions should be true.	Specifies that at least one condition from a column should be true.

Defaults match-all

Command Modes Rule configuration (config-rule)
Zone configuration (config-zone)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG2(1.1)	This command was introduced.

Examples This example shows how to specify the condition match criteria for a rule:

```
vsg(config)# rule inet_web_rule
vsg(config-rule)# cond-match-criteria match-any
vsg(config-rule)# condition 1 dst.zone.name eq web_servers
vsg(config-rule)# condition 2 dst.net.port member_of http_ports
vsg(config-rule)# action permit
vsg(config-rule)# exit
```

Related Commands	Command	Description
	condition	Specifies a condition statement used in a rule or zone.
	rule	Enters the rule configuration submode.
	zone	Enters the zone configuration submode.

configure

To enter configuration mode, use the **configure** command.

configure

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enter configuration mode:

```
vsg# configure
Enter configuration commands, one per line. End with CNTL/Z.
vsg(config)#
```

Related Commands	Command	Description
	interface data 0	Enters interface configuration mode.

copy bootflash:

To copy files from the bootflash directory, use the **copy bootflash:** command.

copy bootflash:*//file-address destination-address*

Syntax Description		
<i>//file-address</i>		Address of the files to copy.
<i>destination-address</i>		Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
----------------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
---------------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy a file from a remote bootflash directory to a local bootflash directory:

```
vsg# copy bootflash://jsmith@209.193.10.10/ws/jsmith-sjc/vsg-dplug.bin bootflash:/
```

Related Commands

Command	Description
copy volatile:	Copies files from the volatile: directory.

■ **copy core:**

copy core:

To copy files from the core directory, use the **copy core:** command.

copy core: *//file-address destination-address*

Syntax Description	
<i>//file-address</i>	Address of the files to copy.
<i>destination-address</i>	Address of the destination directory.
	Use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • ftp: • scp: • sftp: • tftp:

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

Supported User Roles	network-admin network-operator
----------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	None
------------------	------

Examples	This example shows how to copy a file from a remote core directory to a local volatile directory: <pre>vsg# copy core://user@209.193.10.11/ps/user-rtg/vsgLog.txt volatile:/</pre>
----------	---

Related Commands	Command	Description
	copy log:	Copies files from the log directory.

copy debug:

To copy files from the debug directory, use the **copy debug:** command.

copy debug: *//file-address destination-address*

Syntax Description	<i>//file-address</i>	Address of the files to copy.
	<i>destination-address</i>	Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
----------------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
---------------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	<p>This example shows how to copy a file from a remote debug directory to a local volatile directory:</p> <pre>vsg# copy debug://user@209.193.10.11/ps/user-rtg/vsgLog.txt volatile:/</pre>
-----------------	---

■ copy debug:

Related Commands	Command	Description
	copy bootflash:	Copies files from the bootflash directory.

copy ftp:

To copy files from the file transfer protocol (FTP) directory, use the **copy ftp:** command.

copy ftp:*//file-address destination-address*

Syntax Description		
<i>//file-address</i>	Address of the files to copy.	
<i>destination-address</i>	Address of the destination directory.	
	Use one of the following directories in the destination address:	
	<ul style="list-style-type: none"> • bootflash: • debug: • log: • modflash: • nvr: • nvram: • system: • volatile: 	

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to transfer a file from a remote FTP directory to a local bootflash directory:
	<pre>vsg# copy ftp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin bootflash:/</pre>

Related Commands	Command	Description
	copy sftp:	Copies the files from the SFTP directory.

■ **copy log:**

copy log:

To copy files from the log directory, use the **copy log:** command.

copy log:*//file-address destination-address*

Syntax Description	
<i>//file-address</i>	Address of the files to copy.
<i>destination-address</i>	Address of the destination directory.
	Use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy files from a remote log directory to a local volatile directory:

```
vsg# copy log://user@209.193.10.11/ps/user-rtg/vsgLog.txt volatile:/
```

Related Commands

Command	Description
copy debug:	Copies files from the debug directory.

■ **copy modflash:**

copy modflash:

To copy files from the modflash directory, use the **copy modflash:** command.

copy modflash: *//file-address destination-address*

Syntax Description	
<i>//file-address</i>	Address of the files to copy.
<i>destination-address</i>	Address of the destination directory.
	Use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy files from a remote modflash directory to a local volatile directory:

```
vsg# copy modflash://user@209.193.10.10/ws/user-sjc/vsg-mod.bin volatile:/
```

Related Commands

Command	Description
copy nvram:	Copies files from the NVRAM directory.

■ `copy nvram:`

copy nvram:

To copy files from the nonvolatile RAM (NVRAM) directory, use the **copy nvram:** command.

copy nvram:*//file-address destination-address*

Syntax Description	
<i>//file-address</i>	Address of the NVRAM files to copy.
<i>destination-address</i>	Address of the destination directory.
	Use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
----------------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
---------------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to copy files from a remote NVRAM directory to a local volatile directory: vsg# copy nvram://user@209.193.10.10/ws/user-sjc/vsg-ram.bin volatile:/
-----------------	---

Related Commands

Command	Description
copy modflash:	Copies files from a modflash directory.

copy running-config

To copy the running configuration, use the **copy running-config** command.

copy running-config *destination-address* [**all-vdc**]

Syntax Description

<i>destination-address</i>	Address of the destination directory. Use one of the following directories in the destination address: <ul style="list-style-type: none"> • bootflash: • ftp: • nvr: • scp: • sftp: • tftp: • volatile:
all-vdc	(Optional) Copies to all virtual device contexts (VDC).

Defaults

None

Command Modes

EXEC
Global configuration

Supported User Roles

network-admin

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to copy the running configuration to the bootflash directory:

```
vsg# copy running-config bootflash:
```

Related Commands

Command	Description
copy startup-config	Copies a startup configuration to a specified destination.

copy scp:

To copy files from the Secure Control Protocol (SCP) directory, use the **copy scp:** command.

```
copy scp://file-address destination-address
```

Syntax Description		
	<i>//file-address</i>	Address of the files to copy.
	<i>destination-address</i>	Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • log: • modflash: • nvr: • running-config • startup-config • system: • volatile:

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

SupportedUserRoles	
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to copy files from a remote SCP directory to a local volatile directory:
	<pre>vsg# copy scp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin volatile:/</pre>

Related Commands	Command	Description
	copy sftp:	Copies files from the SFTP directory.

copy sftp:

To copy files from the Secure File Transfer Protocol (SFTP) directory, use the **copy sftp:** command.

copy sftp:*//file-address destination-address*

Syntax Description		
<i>//file-address</i>		Address of the files to copy.
<i>destination-address</i>		Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • log: • modflash: • nvr: • nvram: • system: • volatile:

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to transfer a file from a remote SFTP directory to a local bootflash directory:
	<pre>vsg# copy sftp://jjones@209.193.10.11/ps/jjones-rtg/vsg-dplug.bin bootflash:/</pre>

Related Commands	Command	Description
	copy tftp:	Copies files from the Trivial File Transfer Protocol (TFTP) directory.

copy startup-config

To copy the startup configuration, use the **copy startup-config** command.

copy startup-config *destination-address* [**all-vdc**]

Syntax Description	<i>destination-address</i>	Address of the destination directory. Use one of the following directories in the destination address: <ul style="list-style-type: none"> • bootflash: • ftp: • nvr: • scp: • sftp: • tftp: • volatile:
	all-vdc	(Optional) Copies to all virtual device contexts (VDC).

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy the startup configuration to the bootflash directory:
vsg# **copy startup-config bootflash:**

Related Commands	Command	Description
		copy running-config

■ **copy system:**

copy system:

To copy files from the file directory, use the **copy system:** command.

copy system: *//file-address destination-address*

Syntax Description	
<i>//file-address</i>	Address of the files to copy.
<i>destination-address</i>	Address of the destination directory.
	You use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy files from a remote file directory to a local bootflash directory:

```
vsg# copy system://pkim@209.193.10.12/ps/pkim-rich/vsg-dplug.bin bootflash:/
```

Related Commands

Command	Description
copy bootflash:	Copies files to the bootflash directory.

■ **copy tftp:**

copy tftp:

To copy files from the Trivial File Transfer Protocol (TFTP) directory, use the **copy tftp:** command.

copy tftp://file-address destination-address

Syntax Description		
<i>//file-address</i>		Address of the files to copy.
<i>destination-address</i>		Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • log: • modflash: • nvr: • nvram: • system: • volatile:

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to copy files from a remote TFTP directory to a local bootflash directory:
	<pre>vsg# copy tftp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin bootflash:/</pre>

Related Commands	Command	Description
	copy sftp:	Copies files from the SFTP directory.

copy volatile:

To copy files from the volatile directory, use the **copy volatile:** command.

copy volatile: *//file-address destination-address*

Syntax Description		
<i>//file-address</i>		Address of the file to copy.
<i>destination-address</i>		Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvram: • scp: • sftp: • system: • tftp: • volatile:

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
----------------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
---------------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	<p>This example shows how to copy files from a remote volatile directory to a local bootflash directory:</p> <pre>vsg# copy volatile://user@209.193.10.10/ws/user-sjc/vsg-dplug.bin bootflash:/</pre>
-----------------	---

■ `copy volatile:`

Related Commands	Command	Description
	<code>copy bootflash:</code>	Copies files from the bootflash directory.

debug logfile

To direct the output of the **debug** command to a specified file, use the **debug logfile** command. To revert to the default, use the **no** form of the command.

```
debug logfile filename [size bytes]
```

```
no debug logfile filename [size bytes]
```

Syntax Description		
<i>filename</i>	Name of the file for debug command output. The filename is alphanumeric, case sensitive, and has a maximum of 64 characters.	
size	(Optional) Specifies the size of the logfile in bytes.	
<i>bytes</i>	(Optional) Bytes. The range is from 4096 to 10485760.	

Defaults	
Default filename:	syslogd_debugs
Default file size:	10485760 bytes

Command Modes	
EXEC	
Global configuration (config)	

SupportedUserRoles	
network-admin	
network-operator	

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	
The logfile is created in the log: file system root directory.	
Use the dir log: command to display the log files.	

Examples	
This example shows how to specify a debug logfile:	
	<pre>vsg# debug logfile debug_log</pre>

This example shows how to revert to the default debug logfile:

```
vsg# no debug logfile debug_log
```

Related Commands

Command	Description
dir	Displays the contents of a directory.
show debug	Displays the debug configuration.
show debug logfile	Displays the debug logfile contents.

debug logging

To enable **debug** command output logging, use the **debug logging** command. To disable debug logging, use the **no** form of this command.

debug logging

no debug logging

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enable the output logging for the **debug** command:

```
vsg# debug logging
```

This example shows how to disable the output logging for the **debug** command:

```
vsg# no debug logging
```

Related Commands	Command	Description
	debug logfile	Configures the logfile for the debug command output.

delete

To delete the contents of a directory, use the **delete** command.

```
delete { bootflash: | debug: | log: | modflash: | volatile: }
```

Syntax Description		
	bootflash:	Specifies the bootflash directory.
	debug:	Specifies the debug directory.
	log:	Specifies the log directory.
	modflash:	Specifies the modflash directory.
	volatile:	Specifies the volatile directory.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to delete the contents of the bootflash directory: vsg# delete bootflash:
----------	--

Related Commands	Command	Description
	copy	Copies files to directories.

dir

To display the contents of a directory or file, use the **dir** command.

dir [**bootflash:** | **debug:** | **log:** | **modflash:** | **volatile:**]

Syntax Description	
bootflash:	(Optional) Specifies the directory or filename.
debug:	(Optional) Specifies the directory or filename on expansion flash.
log:	(Optional) Specifies the directory or filename on log flash.
modflash:	(Optional) Specifies the directory or filename on module flash.
volatile:	(Optional) Specifies the directory or filename on volatile flash.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Use the **pwd** command to identify the directory you are currently working in.
Use the **cd** command to change the directory you are currently working in.

Examples This example shows how to display the contents of the bootflash: directory:
vsg# **dir bootflash:**

Related Commands	Command	Description
	cd	Changes the current working directory.
	pwd	Displays the current working directory.

echo

To echo an argument back to the terminal screen, use the **echo** command.

echo [**backslash-interpret**] [*text*]

Syntax Description	backslash-interpret	(Optional) Interprets any character following a backslash character (\) as a formatting option.
	<i>text</i>	(Optional) Text string to display. The text string is alphanumeric, case sensitive, can contain spaces, and has a maximum length of 200 characters. The text string can also contain references to CLI variables.

Defaults Displays a blank line.

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines You can use this command in a command script to display information while the script is running. [Table 1](#) lists the formatting keywords that you can insert in the text when you include the **backslash-interpret** keyword.

Table 1 Formatting Options for the echo Command

Formatting Option	Description
\b	Specifies back spaces.
\c	Removes the new line character at the end of the text string.
\f	Inserts a form feed character.
\n	Inserts a new line character.
\r	Returns to the beginning of the text line.
\t	Inserts a horizontal tab character.
\v	Inserts a vertical tab character.

Table 1 *Formatting Options for the echo Command (continued)*

Formatting Option	Description
\	Displays a backslash character.
\nnn	Displays the corresponding ASCII octal character.

Examples

This example shows how to display a blank line at the command prompt:

```
vsg# echo
```

This example shows how to display a line of text at the command prompt:

```
vsg# echo Script run at $(TIMESTAMP).
Script run at 2008-08-12-23.29.24.
```

This example shows how to use a formatting option in the text string:

```
vsg# echo backslash-interpret This is line #1. \nThis is line #2.
This is line #1.
This is line #2.
```

Related Commands

Command	Description
run-script	Runs command scripts.

■ end

end

To return to EXEC mode from any lower-level mode, use the **end** command.

end

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enter VNMC policy agent mode and then how to return to EXEC mode:

```
vsg(config)# vnm-policy-agent
vsg(config-vnm-policy-agent)# end
```

Related Commands	Command	Description
	configure	Enters configuration mode.

event

To clear the event counter, use the **event** command.

event manager clear counter *counter-name*

Syntax Description	event manager	Places you in the event manager.
	clear counter	Clears the counter.
	<i>counter-name</i>	Counter name. The text string is alphanumeric, case sensitive, can contain spaces, and has a maximum length of 28 characters.

Defaults Displays a blank line.

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear the event counter:
vsg# **event manager clear counter default**

Related Commands	Command	Description
	show event	Displays event information.

event-log archive

To archive event logs for the policy engine or all modules, use the **event-log archive** command. The event logs are archived in a file with .gz extension in the **bootflash:** directory.

event-log archive {policy_engine | all}

Syntax Description		
	policy_engine	Archives the event logs for the policy engine.
	all	Archives the event logs for all modules.

Defaults None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG2(1.1)	This command was introduced.

Examples This example shows how to archive event logs for the policy engine:

```
vsg# event-log archive policy_engine
Generated archive: event-logs.Mar_13_13-16_18_04.tar.gz
```

This example shows how to archive event logs for all modules:

```
vsg# event-log archive all
Generated archive: event-logs.Mar_13_13-16_15_23.tar.gz
```

Related Commands	Command	Description
	clear event-log policy_engine	Clears the event log buffer for the policy engine.
	event-log policy_engine	Enables logging debugs for the policy engine.

event-log inspect

To inspect the event log, use the **event-log inspect** command. To disable this feature, use the **no** form of this command.

```
event-log inspect {ac {error | info | inst-error | inst-info} | error | ftp {error | info | pkt_trace | warn} | info | rsh {error | info | pkt_trace} | tftp {error | info}}
```

```
no event-log inspect {ac {error | info | inst-error | inst-info} | error | ftp {error | info | pkt_trace | warn} | info | rsh {error | info | pkt_trace} | tftp {error | info}}
```

Syntax Description	ac	Enables event logging for the AC module.
	error	Enables logging for error events.
	info	Enables logging for informational events.
	inst-error	Enables logging for the AC instance error event.
	inst-info	Enables logging for the AC instance informational events.
	ftp	Enables event logging for the FTP module.
	pkt_trace	Enables logging for the packet trace event.
	warn	Enables logging for the warning event.
	rsh	Enables event logging for the Remote Shell (RSH) module.
	pkt_trace	Enables logging for the packet trace event.
	tftp	Enables event logging for the TFTP module.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG2(1.1)	This command was introduced.

Examples This example shows how to inspect the event log:

```
vsg# event-log inspect ac error
```

event-log policy_engine

To enable logging debugs for the policy engine, use the **event-log policy_engine** command. To disable this feature, use the **no** form of this command.

```
event-log policy_engine { ac { error | info | inst-error | inst-info } | attr-mgr { control | data | error } | data | data-detail }
```

```
no event-log policy_engine { ac { error | info | inst-error | inst-info } | attr-mgr { control | data | error } | data | data-detail }
```

Syntax Description

ac	Enables event logging for the AC module.
error	Enables logging for error events.
info	Enables logging for informational events.
inst-error	Enables logging for the AC instance error event.
inst-info	Enables logging for the AC instance informational events.
attr-mgr	Enables event logging for the Attribute Manager module.
control	Enables display of the control plane event.
data	Enables event logging for the service path module.
data-detail	Enables the display of data path events details.

Defaults

None

Command Modes

EXEC

Supported User Roles

network-admin

Command History

Release	Modification
4.2(1)VSG2(1.1)	This command was introduced.

Examples

This example shows how to archive event logs for all modules:

```
vsg# event-log policy_engine ac inst-error
```

Related Commands

Command	Description
clear event-log policy_engine	Clears the event log buffer for the policy engine.

event-log save config

To save the current configuration of event-logs, use the **event-log save config** command.

event-log save config

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG2(1.1)	This command was introduced.

Usage Guidelines Use this command to save the current configuration of event-logs in persistent memory. When a device reload or switchover occurs, the saved event-log configuration is applied.

Examples This example shows how to save the current configuration of event-logs:

```
vsg# event-log save config
```

event-log service-path

To enable logging debugs for the service-path process, use the **event-log service-path** command. To disable this feature, use the **no** form of this command.

```
event-log service-path {ac {error | info | inst-error | inst-info} | fm {debug | error | info} | sp
{error | info | pkt-detail | pkt-error | pkt-info | vptah-lib-error | vpath-lib-info |
vpath-lib-frag} [terminal]}
```

```
no event-log service-path {ac {error | info | inst-error | inst-info} | fm {debug | error | info} | sp
{error | info | pkt-detail | pkt-error | pkt-info | vpath-lib-error | vpath-lib-info |
vpath-lib-frag} [terminal]}
```

Syntax Description	ac	Enables event logging for the AC module.
	error	Enables logging for error events.
	info	Enables logging for informational events.
	inst-error	Enables logging for installation errors.
	inst-info	Enables logging for installation information.
	fm	Enables event logging for the Flow Manager module.
	debug	Enables debug information.
	sp	Enables event logging for the service path module.
	pkt-detail	Enables the display of packet details events.
	pkt-error	Enables the display of packet errors events.
	pkt-info	Enables the display of packet information events.
	vpath-lib-error	Enables logging of vPath library errors events.
	vpath-lib-info	Enables logging of vPath library information events.
	vpath-lib-frag	Enables logging of vPath library fragmentation events.
	terminal	(Optional) Enables logging to be displayed at the terminal.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(2)	This command was modified to include sp {vpath-lib-error vpath-lib-info vpath-lib-frag} .
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines

Event logs are written to the process buffer and can be viewed by the **show system internal event-log service-path** command. When the **terminal** option is entered, the event logs are displayed on the terminal.

Examples

This example shows how to display the event logs for the service-path vPath library errors on the terminal:

```
vsg# event-log service-path sp vpath-lib-error terminal
```

Related Commands

Command	Description
show event-log all	Displays all the event-logs turned on in the system.
show system internal event-log service-path	Displays the debug logs logged as a result of using the event-log service-path sp command.
event-log save	Saves the event-log configuration across reboots.

exit

To exit the current mode, use the **exit** command.

exit

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to exit the current mode:

```
vsg(config)# exit
vsg#
```

Related Commands	Command	Description
	end	Places you in EXEC mode.

find

To find filenames that begin with a character string, use the **find** command.

find *filename-prefix*

Syntax Description	<i>filename-prefix</i>	First part or all of a filename. The filename prefix is case sensitive.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Usage Guidelines	The find command searches all subdirectories under the current working directory. You can use the cd and pwd commands to navigate to the starting directory.	
Examples	This example shows how to find a filename that has a prefix of “a”: vsg# find a	
Related Commands	Command	Description
	pwd	Lists the directory you are currently in.

gunzip

To uncompress a compressed file, use the **gunzip** command.

gunzip *filename*

Syntax Description	<i>filename</i>	Name of the file.
--------------------	-----------------	-------------------

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	The compressed filename must have the .gz extension. You do not have to enter the .gz extension as part of the filename. The Cisco NX-OS software uses Lempel-Ziv 1977 (LZ77) coding for compression.
------------------	---

Examples	This example shows how to uncompress a compressed file: vsg# gunzip run_cfg.cfg
----------	---

Related Commands	Command	Description
	dir	Displays the directory contents.
	gzip	Compresses a file.

gzip

To compress a file, use the **gzip** command.

gzip *filename*

Syntax Description	<i>filename</i>	Filename.
---------------------------	-----------------	-----------

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
----------------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
---------------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	After you use this command, the file is replaced with the compressed filename that has the .gz extension. The Cisco NX-OS software uses Lempel-Ziv 1977 (LZ77) coding for compression.
-------------------------	--

Examples	This example shows how to compress a file: vsg# gzip run_cfg.cfg
-----------------	--

Related Commands	Command	Description
	dir	Displays the directory contents.
	gunzip	Uncompresses a compressed file.

install

To install an image upgrade, use the **install** command.

```
install all {iso | kickstart}
```

Syntax Description	Parameter	Description
	iso	Specifies an ISO image.
	kickstart	Specifies a kickstart image.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to install an ISO image upgrade:

```
vsg# install all iso bootflash://smith@209.165.200.226/test
```

Related Commands	Command	Description
	show install	Displays the software installation impact between two images.

interface

To configure an interface on the Cisco VSG, use the **interface** command. To remove an interface, use the **no** form of this command.

```
interface { data number | ethernet slot/port | loopback number | mgmt number | port-channel
channel-number }
```

```
no interface { data number | ethernet slot/port | loopback number | mgmt number | port-channel
channel-number }
```

Syntax Description

data	Specifies the data interface number.
<i>number</i>	Data interface number. The number is 0.
ethernet	Specifies the slot and port number for the Ethernet interface.
<i>slot/port</i>	Slot and port number of the interface.
loopback	Specifies a virtual interface number.
<i>number</i>	Virtual interface number. The range is from 0 to 1023.
mgmt	Specifies the management interface number.
<i>number</i>	Management interface number. The number is 0.
port-channel	Specifies a port-channel interface number.
<i>channel-number</i>	Port-channel interface number. The range is from 0 to 1023.

Defaults

None

Command Modes

Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to configure an interface:

```
vsg# interface data 0
```

This example shows how to remove an interface:

```
vsg# no interface data 0
```

■ interface

Related Commands	Command	Description
	show interface	Displays the interface and IP details, including Rx and Tx packets or bytes.

ip

To configure IP details, use the **ip** command. To revert to the default settings, use the **no** form of this command.

```
ip { access-list match-local-traffic | arp timeout seconds | domain-list name | domain-lookup |
host name | igmp | name-server | route | routing event-history | tcp | tftp
path-mtu-discovery }
```

```
no ip { access-list match-local-traffic | arp timeout seconds | domain-list name | domain-lookup
| host name | igmp | name-server | route | routing event-history | tcp | tftp
path-mtu-discovery }
```

Syntax Description		
access-list match-local-traffic		Specifies the access-list matching for locally generated traffic.
arp timeout <i>seconds</i>		Specifies the Address Resolution Protocol (ARP) timeout. The range is from 60 to 28800.
domain-list <i>name</i>		Specifies an additional domain name. The name has a maximum of 64 characters.
domain-lookup		Specifies the domain name server (DNS).
host <i>name</i>		Specifies an entry to the IP hostname table.
igmp		Specifies event-history buffers or snooping in Internet Gateway Management Protocol (IGMP) global configuration mode.
name-server		Specifies the name-server address, IPv4 or IPv6.
route		Specifies the route IP prefix information.
routing event-history		Specifies the logs for routing events.
tcp		Configures global Transfer Control Protocol (TCP) parameters.
tftp path-mtu-discovery		Specifies path-MTU discovery on the Trivial File Transfer Protocol (TFTP).

Defaults	1500
-----------------	------

Command Modes	Global configuration
----------------------	----------------------

SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows the **ip** command being used to configure IP details:

```
vsg(config)# ip host testOne 209.165.200.231
```

Related Commands

Command	Description
show ip	Displays IP details.

line

To specify the line configuration, use the **line** command.

```
line { com1 | console | vtty }
```

Syntax Description	com1	Specifies the COM1 port and enters the COM1 port configuration mode.
	console	Specifies the console port and enters the console port configuration mode.
	vtty	Specifies the virtual terminal and enters the line configuration mode.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enter the COM1 port configuration mode:

```
vsg(config)# line com1
vsg(config-com1)#
```

This example shows how to enter the console port configuration mode:

```
vsg(config)# line console
vsg(config-console)#
```

This example shows how to enter the line configuration mode:

```
vsg(config)# line vty
vsg(config-line)#
```

Related Commands	Command	Description
	show line	Displays information about the COM1 port, console port configuration, and the line configuration.

logging

To configure logging, use the **logging** command.

```
logging {abort | commit | console severity-level | distribute | event | level | logfile name | module
severity-level | monitor severity-level | server | source-interface loopback number |
timestamp time-type}
```

Syntax Description		
abort		Discards the logging Cisco Fabric Services (CFS) distribution session in progress without committing and then releases the lock.
commit		Applies the pending configuration pertaining to the logging CFS distribution session in progress in the fabric and then releases the lock.
console <i>severity-level</i>		Enables logging messages to the console session. To disable, use the no logging console command. The range is from 0 to 7.
distribute		Enables fabric distribution using CFS distribution for logging. To disable, use the no logging distribute command.
event		Logs interface events. To disable, use the no logging event command.
level		Enables logging of messages from a named facility at a specified severity level. To disable, use the no logging level command.
logfile <i>name</i>		Configures the specified log file that stores system messages. To disable, use the no logging logfile command.
module <i>severity-level</i>		Starts logging of module messages to the log file. To disable, use the no logging module command. The range is from 0 to 7.
monitor <i>severity-level</i>		Enables the logging of messages to the monitor (terminal line). To disable, use the no logging monitor command. The range is from 0 to 7.
server		Designates and configures a remote server for logging system messages. To disable, use the no logging server command.
source-interface loopback <i>number</i>		Enables a source interface for the remote syslog server. To disable, use the no logging source-interface command. The range is from 0 to 1023.
timestamp <i>time-type</i>		Sets the unit of time used for the system messages time stamp, in microseconds, milliseconds, or seconds. To disable, use the no logging timestamp command.

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to discard logging a CFS distribution session in progress:

```
vsg(config)# logging abort
```

Related Commands

Command	Description
show logging	Displays logging information.

match

To specify a condition used in an object group, use the **match** command. To remove a condition in an object group, use the **no** form of this command.

```
match {eq | gt | lt | prefix | contains | in-range | neq | not-in-range} attribute-value1
      [attribute-value2]
```

Syntax Description		
eq		Specifies equal to a number or exactly matched with a string.
gt		Specifies greater than.
lt		Specifies less than.
prefix		Specifies a prefix of a string or an IP address.
contains		Contains a substring.
in-range		Specifies a range of two integers, dates, times, or IP addresses.
neq		Specifies not equal to a number or not exactly matched with a string.
not-in-range		Negates the in-range operator.
<i>attribute-value1</i>		Value of the attribute such as 10.10.10.10 or name of an object-group such as "ipaddr-group."
<i>attribute-value2</i>		(Optional) Value of an attribute or netmask of a network address.

Command Default None

Command Modes Policy configuration (config-policy)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines When multiple condition statements are used in an object group, all conditions are considered to be OR'd during policy evaluation. The following operators require at least two attribute values:

- **prefix**—When applied against a subnet mask (for example, **prefix** 10.10.10.1 255.255.255.0)
- **in-range**—For all types of attribute values (for example, **in-range** 10.10.10.1 10.10.10.200)
- **not-in-range**—For all types of attribute values (for example, **not-in-range** 10.10.10.1 10.10.10.200)

Attribute values can be any of the following:

- Integer
- Integer range

- IP address, or a netmask
- IP address range
- String

Examples

This example shows how to set conditions to be used in an object group:

```
vsg(config-object-group)# match 1 eq 80  
vsg(config-object-group)# match 2 eq 443  
vsg(config-object-group)# exit  
vsg(config)#
```

Related Commands

Command	Description
object-group	Enters the object-group configuration submode.

mkdir (VSG)

To create a new directory, use the **mkdir** command.

```
mkdir {bootflash: | debug: | modflash: | volatile:}
```

Syntax Description	
bootflash:	Specifies bootflash: as the directory name.
debug:	Specifies debug: as the directory name.
modflash:	Specifies modflash: as the directory name.
volatile:	Specifies volatile: as the directory name.

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

SupportedUserRoles	
	network-admin

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.
	4.2(1)VSG1(1)	This command was introduced for the Cisco VSG.

Examples	
	This example shows how to create the bootflash: directory:
	<pre>vsg# mkdir bootflash:</pre>

Related Commands	Command	Description
	cd	Changes the current working directory.
	dir	Displays the directory contents.
	pwd	Displays the name of the current working directory.

no event-log all

To remove the event-log configuration for all modules, use the **no event-log** command.

no event-log all

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG2(1.1)	This command was introduced.

Examples This example shows how to remove the event-log configuration for all modules:

```
vsg# no event-log all
```

Related Commands	Command	Description
	event-log inspect	Enables or disables event logging for inspection engine.
	event-log policy_engine	Enables or disables event logging for policy engine.
	event-log service-path	Enables or disables event logging for service path.

ntp sync-retry (VSG)

To retry synchronization with configured servers, use the **ntp sync-retry** command. To stop this process, use the **no** form of this command.

ntp sync-retry

no ntp sync-retry

Syntax Description This command has no arguments or keywords.

Defaults Enabled

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced for the Cisco VSG.

Examples This example shows how to enable the Network Time Protocol (NTP) synchronization retry:

```
vsg# ntp sync-retry
```

This example shows how to disable the NTP synchronization retry:

```
vsg# no ntp sync-retry
```

Related Commands	Command	Description
	show clock	Displays the time and date.

object-group

To reduce the number of rule configurations to accommodate the OR conditions for the HTTP/HTTPS ports, use the **object-group** command. To remove the given object group object and all the relevant configurations, use the **no** form of this command.

object-group *group-name attribute-name*

Syntax Description	<i>group-name</i>	Name of the object group.
	<i>attribute-name</i>	Attribute designated for the group. The attribute used in an object group must be a neutral attribute.
Command Default	None	
Command Modes	Cisco VSG global configuration (config)	
Supported User Roles	network-admin	
Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.
Usage Guidelines	This command enters the object-group submode. This command can be used to build a group of attribute values so the group can be used in a condition statement later on with the operator member .	
Examples	This example shows how to use the object-group command:	
	<pre>vsg(config)# object-group http_ports net.port vsg(config-object-group)#</pre>	
Related Commands	Command	Description
	match	Specifies a condition used in an object group.

password strength-check

To enable password strength checking, use the **password strength-check** command. To disable the password strength checking, use the **no** form of this command.

password strength-check

no password strength-check

Syntax Description This command has no arguments or keywords.

Defaults This feature is enabled by default.

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enable the checking of the password strength:

```
vsg(config)# password strength-check
```

This example shows how to disable the checking of the password strength:

```
vsg(config)# no password strength-check
```

Related Commands	Command	Description
	show password strength-check	Displays the configuration for checking the password strength.
	username	Creates a user account.
	role name	Names a user role and places you in role configuration mode for that role.

policy

To enter the policy configuration submode for constructing a firewall policy on the Cisco VSG, use the **policy** command. To remove the given policy object and all its bindings with other policy objects, use the **no** form of this command.

policy *policy-name*

Syntax Description	policy-name	Policy-map object.
--------------------	-------------	--------------------

Command Default	None
-----------------	------

Command Modes	Global configuration (config)
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SupportedUserRoles	network-admin
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Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines Use the **policy** command to enable the policy configuration subcommand mode when the variable *policy-name* is used to specify the policy-map object.

The **policy** command configuration submode provides the following functions:

- Binding rules to a given policy.
- Creating rank or precedence among all the bound rules.
- Binding zones to a given policy.

Examples

This example shows how to set a 3-tiered policy object:

```
vsg(config)# policy 3-tiered-policy
vsg(config-policy)# rule inet_web_rule order 10
vsg(config-policy)# rule office_app_ssh_rule order 20
vsg(config-policy)# rule web_app_rule order 40
vsg(config-policy)# rule app_db_rule order 50
vsg(config-policy)# rule default_deny_rule order 60
vsg(config-policy)# exit
vsg(config)#
```

Related Commands	Command	Description
	rule	Configures the binding of the policy with a given rule.
	zone	Configures the binding of the policy with a given zone.

pwd

To view the current directory, use the **pwd** command.

pwd

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.
	4.2(1)VSG1(1)	This command was introduced for the Cisco VSG.

Examples This example shows how to view the current directory:

```
vsg# pwd
bootflash:
vsg#
```

Related Commands	Command	Description
	cd	Changes the current directory.

reload

To reboot both the primary and secondary Cisco VSG in a redundant pair, use the **reload** command.

reload

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.
4.2(1)VSG1(1)	This command was introduced for the Cisco VSG.

Usage Guidelines

To reboot only one of the Cisco VSGs in a redundant pair, use the **reload module** command instead.

Before reloading, use the **copy running-configuration to startup-configuration** command to preserve any configuration changes made since the previous reboot or restart.

After reloading it, you must manually restart the Cisco VSG.

Examples

This example shows how to reload both the primary and secondary Cisco VSG:

```
vsg(config)# reload
!!!WARNING! there is unsaved configuration!!!
This command will reboot the system. (y/n)? [n] y
2010 Dec 20 11:33:35 bl-vsg %PLATFORM-2-PFM_SYSTEM_RESET: Manual system restart from
Command Line Interface
```

Related Commands

Command	Description
reload module	Reloads the specified Cisco VSG (1 or 2) in a redundant pair.

reload module

To reload one of the Cisco VSGs in a redundant pair, use the **reload module** command.

reload module *module* [**force-dnld**]

Syntax Description		
<i>module</i>		Module number (use 1 for the primary Cisco VSG or 2 for the secondary Cisco VSG).
force-dnld		(Optional) Reboots the specified module to force NetBoot and image download.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.
	4.2(1)VSG1(1)	This command was introduced for the Cisco VSG.

Usage Guidelines

To reboot both the Cisco VSGs in a redundant pair, use the **reload** command instead.

Before reloading, use the **copy running-configuration to startup-configuration** command to preserve any configuration changes made since the previous reboot or restart.

After reloading it, you must manually restart the Cisco VSG.

Examples This example shows how to reload Cisco VSG 2, the secondary Cisco VSG in a redundant pair:

```
vsg# reload module 2
!!!WARNING! there is unsaved configuration!!!
This command will reboot the system. (y/n)? [n] y
2010 Dec 20 11:33:35 bl-vsg %PLATFORM-2-PFM_SYSTEM_RESET: Manual system restart from
Command Line Interface
```

Related Commands	Command	Description
	show version	Displays information about the software version.
	reload	Reboots both the primary and secondary Cisco VSG.

restart

To manually restart a component, use the **restart** command. To disable manual restart, use the **no** form of this command.

restart

no restart

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes EXEC

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Do not use this command unless you are absolutely certain that there is no one else using the system.

Examples This example shows how to restart the Cisco VSG:

```
vsg# restart
```

Related Commands	Command	Description
	reload	Reboots the entire device.

rmdir (VSG)

To remove a directory, use the **rmdir** command.

```
rmdir { bootflash: | debug: | modflash: | volatile: }
```

Syntax Description	
bootflash:	Deletes the bootflash: directory.
debug:	Deletes the debug: directory.
modflash:	Deletes the modflash: directory.
volatile:	Deletes the volatile: directory.

Defaults Removes the directory from the current working directory.

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to remove the bootflash directory:
vsg# **rmdir bootflash:**

Related Commands	Command	Description
	cd	Changes the current working directory.
	dir	Displays the directory contents.
	pwd	Displays the name of the current working directory.

role

To configure a user role, use the **role** command. To delete a user role, use the **no** form of this command.

```
role { feature-group feature-group-name | name { name | network-observer } }
```

```
no role { feature-group name | [name name | network-observer] }
```

Syntax Description

feature-group <i>name</i>	Specifies a role for a feature group. The name can be any alphanumeric string up to 32 characters.
name <i>name</i>	Specifies the role name. The name can be any alphanumeric string up to 16 characters.
network-observer	Specifies the user role.

Defaults

This feature is enabled by default.

Command Modes

Global configuration

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to configure a user role for a feature group:

```
vsg(config)# role feature-group name abc  
vsg(config-role-featuregrp)#
```

Related Commands

Command	Description
show role	Displays the role configuration.
role name	Names a user role and places you in role configuration mode for that role.

rule

To enter the configuration submode to build a firewall rule that consists of multiple conditions and actions, use the **rule** command. To remove the given rule object and all the relevant configurations, use the **no** form of this command.

rule *rule-name*

Syntax Description	<i>rule-name</i>	Rule object.
Command Default	None	
Command Modes	Global configuration (config)	
Supported User Roles	network-admin	
Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines Use the **rule** command to enter the rule configuration submode. The *rule-name* variable is used to specify the rule object that is to be configured.

Examples This example shows how to build firewall rules on the Cisco VSG:

```
vsg(config)# rule inet_web_rule
vsg(config-rule)# cond-match-criteria match-any
vsg(config-rule)# condition 1 dst.zone.name eq web_servers
vsg(config-rule)# condition 2 dst.net.port member_of http_ports
vsg(config-rule)# action permit
vsg(config-rule)# exit

vsg(config)# rule office_app_ssh_rule
vsg(config-rule)# cond-match-criteria match-all
vsg(config-rule)# condition 1 dst.zone.name eq app_servers
vsg(config-rule)# condition 2 src.net.ip-address prefix 192.10.1.0 \
255.255.255.0
vsg(config-rule)# condition 3 dst.net.port eq 22
vsg(config-rule)# action permit
vsg(config-rule)# exit

vsg(config)# rule web_app_https_rule
vsg(config-rule)# cond-match-criteria match-all
vsg(config-rule)# condition 1 src.zone.name eq web_servers
vsg(config-rule)# condition 2 dst.zone.name eq app_servers
vsg(config-rule)# condition 3 dst.net.port member_of http_ports
vsg(config-rule)# action permit
```

```

vsg(config-rule)# exit

vsg(config)# rule app_db_rule
vsg(config-rule)# cond-match-criteria match-any
vsg(config-rule)# condition 1 src.zone.name eq app_servers
vsg(config-rule)# condition 2 dst.zone.name eq db_servers
vsg(config-rule)# action permit
vsg(config-rule)# exit

vsg(config)# rule default_deny_rule
vsg(config-rule)# cond-match-criteria match-any
vsg(config-rule)# action deny
vsg(config-rule)# action log
vsg(config-rule)# exit

```

Related Commands

Command	Description
condition	Specifies a condition statement used in a rule.
action	Specifies the actions to be executed when traffic characteristics match with the associated rule.
cond-match-criteria	Specifies the condition match criteria for a rule.

run-script (VSG)

To run a command script that is saved in a file, use the **run-script** command.

```
run-script [bootflash: [> [bootflash: | ftp: | scp: | sftp: | tftp: | volatile:] | >> [bootflash: | ftp: |
scp: | sftp: | tftp: | volatile:] | | [cut | diff | egrep | grep | head | human | last | less | no-more |
sed | sort | sscp | tr | uniq | vsh | wc | xml | begin | count | end | exclude | include] ] | volatile:
[> [bootflash: | ftp: | scp: | sftp: | tftp: | volatile:] | >> [bootflash: | ftp: | scp: | sftp: | tftp: |
volatile:] | | [cut | diff | egrep | grep | head | human | last | less | no-more | sed | sort | sscp | tr
| uniq | vsh | wc | xml | begin | count | end | exclude | include] ] ] [filename]
```

Syntax Description

bootflash:	(Optional) Indicates that the file containing the command script is located in the bootflash file system.
>	(Optional) Redirects the output to a file.
ftp:	(Optional) Designates the destination file system path; in this case, the ftp: directory.
scp:	(Optional) Designates the destination file system path; in this case, the scp: directory.
sftp:	(Optional) Designates the destination file system path; in this case, the sftp: directory.
tftp:	(Optional) Designates the destination file system path; in this case, the tftp: directory.
volatile:	(Optional) Indicates that the file containing the command script is located in the volatile file system.
>>	(Optional) Redirects the output to a file in append mode.
 	(Optional) Pipes the command output to a filter.
cut	(Optional) Prints selected parts of lines.
diff	(Optional) Shows the difference between the current and previous invocation (creates temporary files).
egrep	(Optional) Prints lines that match a pattern.
grep	(Optional) Prints lines that match a pattern.
head	(Optional) Displays only the first lines.
human	(Optional) Provides command output in human readable format if permanently set to XML; otherwise, it turns on XML for the next command.
last	(Optional) Displays only the last lines.
less	(Optional) Designates filter for paging.
no-more	(Optional) Turns off the pagination for command output.
sed	(Optional) Enables the stream editor (SED).
sort	(Optional) Enables the stream sorter.
sscp	(Optional) Enables the stream secure copy (SSCP).
tr	(Optional) Translates, squeezes, and/or deletes characters.
uniq	(Optional) Discards all but one of successive identical lines.
vsh	(Optional) Enables the shell that understands command-line interface (CLI) commands.
wc	(Optional) Enables word count, line count, and character count.
xml	(Optional) Enables output in XML format (according to .xsd definitions).

run-script (VSG)

begin	(Optional) Begins with the line that matches the variable included after the command keyword.
count	(Optional) Enables a count of the number of lines.
end	(Optional) Ends the display with the line that matches the string input after the command keyword.
exclude	(Optional) Excludes the lines that match the string input after the command keyword.
include	(Optional) Includes the lines that match the string input after the command keyword.
<i>filename</i>	(Optional) Name of the file containing the command script. The name is case sensitive.

Defaults

None

Command Modes

EXEC
Global configuration (config)

SupportedUserRoles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to run a command script that is saved in a file called Sample:

```
vsg(config)# run-script volatile:Sample
```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Copies files.
dir	Displays the contents of the working directory.
pwd	Displays the name of the present working directory (pwd).

send

To send a message to an open session, use the **send** command.

```
send {message | session device message}
```

Syntax Description		
	<i>message</i>	Message.
	session	Specifies a specific session.
	<i>device</i>	Device type.

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to send a message to an open session: vsg# send session sessionOne testing

Related Commands	Command	Description
	show banner	Displays a banner.

setup

To use the basic system configuration dialog for creating or modifying a configuration file, use the **setup** command.

setup

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines The Basic System Configuration Dialog assumes the factory defaults.

All changes made to your configuration are summarized for you at the completion of the setup sequence with an option to save the changes or not.

You can exit the setup sequence at any point by pressing **Ctrl-C**.

Examples This example shows how to use the **setup** command to create or modify a basic system configuration:

```
vsg# setup

Enter the domain id<1-4095>: 400

Enter HA role[standalone/primary/secondary]: standalone

[#####] 100%

----- Basic System Configuration Dialog -----

This setup utility will guide you through the basic configuration of
the system. Setup configures only enough connectivity for management
of the system.

*Note: setup is mainly used for configuring the system initially,
when no configuration is present. So setup always assumes system
defaults and not the current system configuration values.
```


Press Enter at anytime to skip a dialog. Use ctrl-c at anytime to skip the remaining dialogs.

```

Would you like to enter the basic configuration dialog (yes/no): y

Create another login account (yes/no) [n]: n

Configure read-only SNMP community string (yes/no) [n]: n

Configure read-write SNMP community string (yes/no) [n]: n

Enter the vsg name : vsg

Continue with Out-of-band (mgmt0) management configuration? (yes/no) [y]:

Mgmt0 IPv4 address :

Configure the default gateway? (yes/no) [y]: n

Configure advanced IP options? (yes/no) [n]:

Enable the telnet service? (yes/no) [y]:

Enable the ssh service? (yes/no) [n]:

Configure the ntp server? (yes/no) [n]:

Configure vem feature level? (yes/no) [n]:

Configure svcs domain parameters? (yes/no) [y]:

Enter SVS Control mode (L2 / L3) : L2
Invalid SVS Control Mode
Enter SVS Control mode (L2 / L3) : L2
Enter control vlan <1-3967, 4048-4093> : 400

Enter packet vlan <1-3967, 4048-4093> : 405

The following configuration will be applied:
vsgname vsg
telnet server enable
no ssh server enable
svcs-domain
svcs mode L2
control vlan 400
packet vlan 405
domain id 405
vlan 400
vlan 405

Would you like to edit the configuration? (yes/no) [n]:

Use this configuration and save it? (yes/no) [y]: n

```

Related Commands

Command	Description
show running-config	Displays the running configuration.

sleep

To set a sleep time, use the **sleep** command.

sleep *time*

Syntax Description	<i>time</i>	Sleep time, in seconds. The range is from 0 to 2147483647.
--------------------	-------------	--

Defaults	Sleep time is not set.
----------	------------------------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

Supported User Roles	network-admin network-operator
----------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	When you set <i>time</i> to 0, sleep is disabled.
------------------	---

Examples	<p>This example shows how to set a sleep time:</p> <pre>vsg# sleep 100</pre> <p>This example shows how to disable sleep:</p> <pre>vsg# sleep 0</pre>
----------	--

Related Commands	Command	Description
	reload	Reboots the Cisco VSG.

snmp-server

To configure the Simple Network Management Protocol (SNMP) values, use the **snmp-server** command. To revert to the default, use the **no** form of this command.

```
snmp-server {aaa-user cache-timeout seconds | community word | contact | context word |
counter | enable traps | globalEnforcePriv | host | location name | mib community-map
name | protocol | source-interface | tcp-session auth | user name}
```

```
no snmp-server {aaa-user cache-timeout seconds | community word | contact | context word |
counter | enable traps | globalEnforcePriv | host | location name | mib community-map
name | protocol | source-interface | tcp-session auth | user name}
```

Syntax Description	
aaa-user	Configures an SNMP timeout value for synchronized AAA users. To revert to the default, use no snmp-server aaa-user cache-timeout . The range is from 1 to 86400.
cache-timeout <i>seconds</i>	
community <i>word</i>	Creates an SNMP community name and assigns access privileges for the community. To remove the community or its access privileges, use the no snmp-server community command. The maximum number of characters is 32.
contact	Configures the sysContact, which is the SNMP contact name. To remove or modify the sysContact, use the no snmp-server contact command.
context <i>word</i>	Configures an SNMP context name to logical network entity mapping. To remove the context, use the no snmp-server context command. The maximum number of characters is 32.
counter	Enables the SNMP cache counter and sets the timeout. To remove the counter, use the no snmp-server counter command.
enable traps	Enables SNMP notifications for traps of module notifications. To disable, use the no snmp-server enable traps command.
globalEnforcePriv	Globally enforces privacy for all SNMP users. To disable, use the no snmp-server globalEnforcePriv command.
host	Configures a host receiver for SNMPv1 or SNMPv2c traps. To remove the host, use the no snmp-server host command.
location <i>name</i>	Configures the sysLocation, which is the SNMP location name. To remove the sysLocation, use the no snmp-server location command. The maximum number of characters is 32.
mib community-map <i>name</i>	Configures the SNMP MIB community map. To remove, use the no snmp-server mib community-map command. The maximum number of characters is 32.
protocol	Enables SNMP protocol operations. To disable, use the no snmp-server protocol command.
source-interface	Configures the SNMP source interface through which notifications are sent. To remove the notifications, use the no snmp-server source-interface command.
tcp-session auth	Enables a one-time authentication for SNMP over a TCP session. To disable authentication, use the no snmp-server tcp-session auth command.
user <i>name</i>	Defines a user who can access the SNMP engine. To deny access, use the no snmp-server user command. The maximum number of characters is 32.

■ snmp-server

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
 network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to configure the AAA user synchronization timeout value:

```
vsg(config)# snmp-server aaa-user cache-timeout 6000
```

Related Commands	Command	Description
	show snmp	Displays information about SNMP.

ssh

To create a Secure Shell (SSH) session, use the **ssh** command.

```
ssh {hostname| connect | name}
```

Syntax Description	hostname	connect	name
	Hostname or user@hostname for the SSH session. The hostname is not case sensitive. The maximum number of characters is 64.	Connects to a named remote host.	Specifies the name of the SSH connection.

Defaults None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Cisco NX-OS software supports SSH version 2.

Examples This example shows how to start an SSH session:

```
vsg# ssh 10.10.1.1 vrf management
The authenticity of host '10.10.1.1 (10.10.1.1)' can't be established.
RSA key fingerprint is 9b:d9:09:97:f6:40:76:89:05:15:42:6b:12:48:0f:d6.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.10.1.1' (RSA) to the list of known hosts.
User Access Verification
Password:
```

Related Commands	Command	Description
	clear ssh session	Clears SSH sessions.
	ssh server enable	Enables the SSH server.

ssh key

To generate a secure-shell (SSH) session key with a specific security configuration, use the **ssh key** command.

```
ssh key { dsa | rsa }
```

Syntax Description	Parameter	Description
	dsa	Generates DSA security keys. There is an option to force the generation of keys, even if the previous ones are present.
	rsa number	Generates RSA security keys at a specified level of bits. The range is from 768 to 2048.

Defaults None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Cisco NX-OS software supports SSH version 2.

Examples This example shows how to generate an SSH session key:

```
vsg(config)# ssh key rsa 770
```

Related Commands	Command	Description
	clear ssh session	Clears SSH sessions.
	ssh server enable	Enables the SSH server.

system clis

To generate an event history, use the **system clis** command. To disable the event history, use the **no** form of this command.

```
system clis event-history { client | errors | ha | nvdb | parser }
```

```
no system clis event-history { client | errors | ha | nvdb | parser }
```

Syntax Description	event-history	Generates event history logs for the command-line interface (CLI).
	client	Generates a client interaction event history log.
	errors	Generates an error event history log.
	ha	Generates a high-availability (HA) event history log.
	nvdb	Generates an NVDB and PSS event history log.
	parser	Generates a parser event history event log.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-administrator
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to generate an error event history log:

```
vsg# system clis event-history errors
```

Related Commands	Command	Description
	show system clis event-history	Displays the event history of the CLI servers.

system cores

To copy cores to a destination, use the **system cores** command. To disable, use the **no** form of this command.

system cores tftp: *//server@ip-address*

no system cores tftp: *//server@ip-address*

Syntax Description	Parameter	Description
	tftp:	Specifies the Trivial File Transfer Protocol (TFTP) protocol.
	<i>server</i>	Destination server.
	<i>ip-address</i>	Destination IP address.

Command Default	Default Value
	None

Command Modes	Mode
	Global configuration (config)

Supported User Roles	User Roles
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	Example
	This example shows how to copy cores to a destination: vsg# system cores tftp://jjones@209.165.200.229

Related Commands	Command	Description
	show system cores	Displays the core transfer option.

system default switchport

To return to system-level default values, use the **system default switchport** command. To disable the default switchport feature, use the **no** form of this command.

system default switchport [shutdown]

no system default switchport [shutdown]

Syntax Description	shutdown (Optional) Shuts down the admin state.				
Command Default	None				
Command Modes	Global configuration (config)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to return to system-level default values:</p> <pre>vsg# system default switchport shutdown</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show system resources</td> <td>Displays system resources.</td> </tr> </tbody> </table>	Command	Description	show system resources	Displays system resources.
Command	Description				
show system resources	Displays system resources.				

system hap-reset

To reset local or remote supervisors after a high-availability (HA) failure, use the **system hap-reset** command. To disable the hap-reset feature, use the **no** form of this command.

system hap-reset

system no hap-reset

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to switch over to the standby supervisor:

```
vsg# system hap-reset
```

Related Commands	Command	Description
	show system redundancy	Displays the system redundancy status.

system health

To check the system health, use the **system health** command.

system health check bootflash

Syntax	Description
check	Runs a consistency check on the compact flash.
bootflash	Checks the internal bootflash.

Command Default None

Command Modes EXEC

Supported User Roles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to check the system health:

```
vsg# system health check bootflash
```

Related Commands	Command	Description
	show system resources	Displays system resources.

system heartbeat

To enable the system heartbeat, use the **system heartbeat** command. To disable the system heartbeat, use the **no** form of the command.

system heartbeat

system no heartbeat

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enable the system heartbeat:

```
vsg# system heartbeat
```

Related Commands	Command	Description
	system health	Checks the system health status.

system internal

To generate debug snapshots for services, use the **system internal** command.

```
system internal snapshot service service-name
```

Syntax Description	snapshot	Generates debug snapshots.
	service	Generates a debug snapshot for a service.
	<i>service-name</i>	Service name.

Command Default None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to generate debug snapshots for services:

```
vsg# system internal snapshot service
```

Related Commands	Command	Description
	show system internal	Displays all internal commands.

system jumbomtu

To set the maximum transmission units (MTU) to jumbo, use the **system jumbomtu** command.

```
system jumbomtu 9000
```

Syntax Description	9000	MTU size.
---------------------------	-------------	-----------

Command Default	None
------------------------	------

Command Modes	Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to set the MTU size to jumbo:
-----------------	--

```
vsg# system jumbomtu 9000
```

Related Commands	Command	Description
	show system resources	Displays the system resource details.

system memlog

To generate a memory log in bootflash, use the **system memlog** command.

system memlog

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to generate a memory log in bootflash:

```
vsg# system memlog
```

Related Commands	Command	Description
	show system memory-alerts-log	Displays a detailed log for memory alerts.
	show system memory-status	Displays memory status information.

system memory-thresholds

To set system memory thresholds, use the **system memory-thresholds** command.

system memory-thresholds { **minor** *minor-memory-threshold* **severe** *severe memory-threshold* **critical** *critical-memory-threshold* | **threshold** **critical** **no-process-kill** }

Syntax Description		
minor		Sets the minor memory threshold.
<i>minor-memory-threshold</i>		Minor threshold as a percentage of memory. The range is from 50 to 100.
severe		Sets the severe memory threshold.
<i>severe memory-threshold</i>		Severe threshold as a percentage of memory. The range is from 50 to 100.
critical		Sets the critical memory threshold.
<i>critical-memory-threshold</i>		Critical threshold as a percentage of memory. The range is from 50 to 100.
threshold		Sets the threshold behavior.
critical		Sets the critical memory threshold.
no-process-kill		Specifies to not kill processes when out of memory.

Command Default None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the memory threshold:

```
vsg# system memory-thresholds minor 60
```

Related Commands	Command	Description
	show system resources	Displays the system resources.

system pss

To shrink PSS files, use the **system pss** command.

system pss shrink

Syntax Description	shrink	Shrinks the PSS files.
Command Default	None	
Command Modes	EXEC	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Examples	This example shows how to shrink PSS files: vsg# system shrink pss	
Related Commands	Command	Description
	show system pss	Displays the PSS shrink status.

system redundancy

To set a system redundancy policy, use the **system redundancy** command.

system redundancy role {primary | secondary | standalone}

Syntax Description	role	Sets the redundancy role.
	primary	Specifies the primary redundant Cisco VSG.
	secondary	Specifies the secondary redundant Cisco VSG.
	standalone	Specifies no redundant Cisco VSG.

Command Default None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the redundancy role:

```
vsg# system redundancy role primary
```

Related Commands	Command	Description
	show system redundancy	Displays the system redundancy status.

system standby

To enable a system standby manual boot, use the **system standby** command. To disable a system standby manual boot, use the **no** form of this command.

system standby manual-boot

no system standby manual-boot

Syntax Description	manual-boot Specifies to perform a manual boot.				
Command Default	None				
Command Modes	EXEC				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set a system standby manual boot:</p> <pre>vsg# system standby manual-boot</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show system standby</td> <td>Displays the system standby manual boot option.</td> </tr> </tbody> </table>	Command	Description	show system standby	Displays the system standby manual boot option.
Command	Description				
show system standby	Displays the system standby manual boot option.				

system startup-config

To initialize or unlock the system startup configuration, use the **system startup-config** command.

```
system startup-config {init | unlock lock id}
```

Syntax Description	init	Initializes the startup configuration.
	unlock	Unlocks the startup configuration.
	lock id	Lock identification number. The range is from 0 to 65536.

Command Default None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to unlock the system startup configuration:

```
vsg# system startup-config unlock 1324
```

Related Commands	Command	Description
	show startup-config	Displays startup system information.

system statistics

To reset the system statistics, use the **system statistics** command.

```
system statistics reset
```

Syntax Description

reset	Resets the system statistics.
--------------	-------------------------------

Command Default

None

Command Modes

EXEC

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to reset the system statistics:

```
vsg# system statistics reset
```

Related Commands

Command	Description
show system redundancy	Displays the system redundancy status.

system switchover

To switch over to the standby supervisor in EXEC mode, use the **system switchover** command.

system switchover

To configure a system switchover in configuration mode, use the **system switchover** command.

system switchover { ha | warm }

Syntax Description

ha	Enables high availability.
warm	Enables a warm switchover.

Command Default

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to switch over to the standby supervisor:

```
vsg# system switchover
```

Related Commands

Command	Description
show redundancy	Displays the system redundancy status.

system trace

To configure the system trace level, use the **system trace** command.

```
system trace {mask}
```

Syntax Description	<i>mask</i> Mask name.
---------------------------	------------------------

Command Default	None
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Command Modes	Global configuration (config)
----------------------	-------------------------------

SupportedUserRoles	network-admin
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to configure the system trace level: vsg# system trace dc1
-----------------	---

Related Commands	Command	Description
	system default	Configures system-level default values.

system watchdog kdgb

To enable a system watchdog, use the **system watchdog** command. To disable a system watchdog, use the **no** form of this command.

system watchdog kdgb

no system watchdog kdgb

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enable watchdog:
vsg# **system watchdog**

Related Commands	Command	Description
	system default	Configures system-level default values.

tail

To display the end of a file, use the **tail** command.

```
tail { bootflash: filename [number] | debug: filename [number] | modflash: filename [number] | volatile: filename [number] }
```

Syntax Description	
bootflash:	Specifies the bootflash directory.
<i>filename</i>	Name of the file.
<i>number</i>	(Optional) Number of lines to display.
debug:	Specifies the debug directory.
modflash:	Specifies the modflash directory.
volatile:	Specifies the volatile directory.

Defaults 10 lines

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to display the last 10 lines of a file:

```
vsg# tail bootflash:startup.cfg
ip arp inspection filter marp vlan 9
ip dhcp snooping vlan 13
ip arp inspection vlan 13
ip dhcp snooping
ip arp inspection validate src-mac dst-mac ip
ip source binding 10.3.2.2 0f00.60b3.2333 vlan 13 interface Ethernet2/46
ip source binding 10.2.2.2 0060.3454.4555 vlan 100 interface Ethernet2/10
logging level dhcp_snoop 6
logging level eth_port_channel 6
```

This example shows how to display the last 20 lines of a file:

```
vsg# tail bootflash:startup.cfg 20
area 99 virtual-link 1.2.3.4
router rip Enterprise
router rip foo
```

```

    address-family ipv4 unicast
router bgp 33.33
event manager applet sdtest
monitor session 1
monitor session 2
ip dhcp snooping vlan 1
ip arp inspection vlan 1
ip arp inspection filter marp vlan 9
ip dhcp snooping vlan 13
ip arp inspection vlan 13
ip dhcp snooping
ip arp inspection validate src-mac dst-mac ip
ip source binding 10.3.2.2 0f00.60b3.2333 vlan 13 interface Ethernet2/46
ip source binding 10.2.2.2 0060.3454.4555 vlan 100 interface Ethernet2/10
logging level dhcp_snoop 6
logging level eth_port_channel 6

```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Copies files.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

telnet

To create a Telnet session, use the **telnet** command.

```
telnet {ipv4-address | hostname} [port-number | vrf vrf-name]
```

Syntax Description		
<i>ipv4-address</i>		IPv4 address of the remote device.
<i>hostname</i>		Hostname of the remote device. The name is alphanumeric, case sensitive, and has a maximum of 64 characters.
<i>port-number</i>		(Optional) Port number for the Telnet session. The range is from 1 to 65535.
vrf <i>vrf-name</i>		(Optional) Specifies the virtual routing and forwarding (VRF) name used for the Telnet session. The name is case sensitive.

Defaults	
	Port 23
	Default VRF

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to start a Telnet session:
	<pre>vsg# telnet 10.10.1.1 vrf management</pre>

Related Commands	Command	Description
	clear line	Clears Telnet sessions.
	telnet server enable	Enables the Telnet server.

terminal alias

To display a terminal alias, use the **terminal alias** command. To disable the terminal alias, use the **no** form of this command.

terminal alias *word persist*

no terminal alias *word persist*

Syntax Description

<i>word</i>	Name of the alias.
<i>persist</i>	Alias configuration saved.

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to display an alias for engineering:

```
vsg# terminal alias engineering
```

Related Commands

Command	Description
show terminal	Displays the terminal configuration.

terminal color

To enable colorization of the command prompt, command line, and output, use the **terminal color** command. To disable the terminal color, use the **no** form of this command.

terminal color [evening | persist]

no terminal color [evening | persist]

Syntax	Description
evening	Sets the screen background to black.
persist	Saves the configuration.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the colorization of the command line:
vsg# **terminal color evening persist**

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal dont-ask

To turn off the “Are you sure?” questions when a command is entered, use the **terminal dont-ask** command. To disable the terminal don’t ask question, use the **no** form of this command.

terminal dont-ask persist

no terminal dont-ask persist

Syntax Description	persist Saves the configuration.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to turn off the “Are you sure?” question when a command is entered:</p> <pre>vsg# terminal dont-ask persist</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal edit-mode

To set the edit mode to vi, use the **terminal edit-mode** command. To return the edit mode to emacs, use the **no** form of this command.

terminal edit-mode vi

no terminal edit-mode vi

Syntax Description	vi	Sets the edit mode to vi.
--------------------	----	---------------------------

Defaults	emacs
----------	-------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to set the command line edition keys: vsg# terminal edit-mode vi
----------	---

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal event-manager

To bypass the CLI event manager, use the **terminal event-manager** command.

terminal event-manager bypass

Syntax Description	bypass Bypasses the CLI event manager.
---------------------------	---

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
----------------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
---------------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to bypass the CLI event manager: vsg# terminal event-manager bypass
-----------------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal history

To disable the recall of EXEC mode commands when in configuration mode, use the **terminal history** command. To enable recall, use the **no** form of this command.

terminal history no-exec-in-config

no terminal history no-exec-in-config

Syntax Description	no-exec-in-config Disables the recall of EXEC mode commands when in configuration mode.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set terminal history properties:</p> <pre>vsg# terminal history no-exec-in-config</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal length

To set the number of lines that appear on the terminal screen, use the **terminal length** command.

terminal length *number*

Syntax Description	<i>number</i>	Number of lines. The range is from 0 to 511.
--------------------	---------------	--

Defaults	28 lines
----------	----------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	Set <i>number</i> to 0 to disable pausing.
------------------	--

Examples	This example shows how to set the number of lines that appear on the screen: <pre>vsg# terminal length 60</pre>
----------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal log-all

To log all commands including the **show** commands, use the **terminal log-all** command.

terminal log-all

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to log all commands:

```
vsg# terminal log-all
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal monitor

To copy syslog output to the current terminal line, use the **terminal monitor** command.

terminal monitor

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy syslog output to the current terminal line:

```
vsg# terminal monitor
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal output

To display **show** command output in XML, use the **terminal output** command. To display **show** command output in text, use the **no** form of this command.

terminal output xml

no terminal output xml

Syntax Description	xml	Displays show command output in XML.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
SupportedUserRoles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Examples	This example shows how to display show command output in XML: vsg# terminal output xml	
Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal redirection-mode

To set the redirection mode, use the **terminal redirection-mode** command.

terminal redirection-mode {ascii | zipped}

Syntax Description	ascii	Sets the redirection mode to ASCII.
	zipped	Sets the redirection mode to zipped.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the redirection mode to ASCII:
vsg# **terminal redirection-mode ascii**

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal session-timeout

To set the terminal session timeout, use the **terminal session-timeout** command.

terminal session-timeout *time*

Syntax Description	<i>time</i>	Timeout time, in seconds. The range is from 0 to 525600.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Usage Guidelines	Set <i>time</i> to 0 to disable terminal session timeout.	
Examples	This example shows how to set the terminal session timeout: vsg# terminal session-timeout 100	
Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal terminal-type

To specify the terminal type, use the **terminal terminal-type** command.

terminal terminal-type *type*

Syntax Description	<i>type</i>	Terminal type.
--------------------	-------------	----------------

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to specify the terminal type: <pre>vsg# terminal terminal-type vt100</pre>
----------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal tree-update

To update the main parse tree, use the **terminal tree-update** command.

terminal tree-update

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to update the main parse tree:

```
vsg# terminal tree-update
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal verify-only

To verify commands, use the **terminal verify-only** command.

terminal verify-only username *word*

Syntax Description	username	Specifies the username for AAA authorization.
	<i>word</i>	Username.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to verify commands: vsg# terminal verify-only
----------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal width

To set the terminal width, use the **terminal width** command.

terminal width *width*

Syntax Description	<i>width</i> Sets the number of characters on a single line. The range is from 24 to 511.				
Defaults	102 columns				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set the terminal width:</p> <pre>vsg# terminal width 60</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

test policy-engine

To test the policy engine on a RADIUS server or in a server group, use the **test policy-engine** command.

test policy-engine { **simulate-pe-req** | **simulate-zone-req** }

Syntax Description	simulate-pe-req	simulate-zone-req
	Simulates the policy engine lookup.	Simulates the policy engine zone.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to test the policy engine: <pre>vsg# test policy-engine simulate-zone-req</pre>
----------	---

Related Commands	Command	Description
	show policy-engine	Displays policy-engine statistics.

test-policy-engine simulate-pe-req policy

To enter the policy-engine configuration submode for unit testing or verification of a policy configuration, use the **test-policy-engine simulate-pe-req policy** command.

test-policy-engine simulate-pe-req policy *policy-name*

Syntax Description	<i>policy-name</i>	Policy to be tested or verified for configuration parameters.
Command Default	None	
Command Modes	Global configuration (config)	
SupportedUserRoles	network-admin	
Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.
Examples	<p>This example shows how to test the ext-company policy.</p> <pre>vsm(config)# test policy-engine simulate-pe-req policy ext-company</pre>	
Related Commands	Command	Description
	attribute	Specifies the particular attribute to be tested in the policy configuration.

tracert

To discover routes, use the **tracert** command.

```
tracert {A.B.C.D. | host-name} [source src-ipv4-addr | vrf vrf-name | show-mpls-hops]
```

Syntax Description	
<i>A.B.C.D.</i> <i>host-name</i>	IPv4 address or hostname of the destination device. The name is case sensitive.
vrf <i>vrf-name</i>	(Optional) Specifies the virtual routing and forwarding (VRF) instance to use. The name is case sensitive.
show-mpls-hops	(Optional) Displays the Multiprotocol Label Switching (MPLS) hops.
source <i>src-ipv4-addr</i>	(Optional) Specifies a source IPv4 address. The format is <i>A.B.C.D.</i>

Defaults

Uses the default VRF.

Does not show the MPLS hops.

Uses the management IPv4 address for the source address.

Command Modes

EXEC

Global configuration (config)

Supported User Roles

network-admin

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines

Use the **tracert6** command to use IPv6 addressing for discovering the route to a device.

Examples

This example shows how to discover a route to a device:

```
vsg# tracert 172.28.255.18 vrf management
tracert to 172.28.255.18 (172.28.255.18), 30 hops max, 40 byte packets
 1 172.28.230.1 (172.28.230.1) 0.746 ms 0.595 ms 0.479 ms
 2 172.24.114.213 (172.24.114.213) 0.592 ms 0.51 ms 0.486 ms
 3 172.20.147.50 (172.20.147.50) 0.701 ms 0.58 ms 0.486 ms
 4 172.28.255.18 (172.28.255.18) 0.495 ms 0.43 ms 0.482 ms
```

Related Commands

Command	Description
tracert6	Discovers the route to a device using IPv6 addressing.

username *name* password

To set a password for the username, use the **username *name* password** command.

username *name* password {**0** *password* | **5** *password* | *password*}

Syntax Description		
	<i>name</i>	Username.
	0 <i>password</i>	Specifies a password. 0 denotes that the password that follows should be set in clear text. The maximum size for <i>password</i> is 64 characters.
	5 <i>password</i>	Specifies a password. 5 denotes that the password that follows should be encrypted. The maximum size for <i>password</i> is 64 characters.
	<i>password</i>	Password in clear text. The maximum size for <i>password</i> is 64 characters.

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set a password for the username:

```
vsg(config)# username admin password 5 q0w9e8R7
```

Usage Guidelines The Cisco VSG does not support multiple user accounts. It supports only the default **admin** user account.

Related Commands	Command	Description
	show users	Displays users.

where

To display your current context, use the **where** command.

where [**detail**]

Syntax Description	detail	(Optional) Displays detailed context information.
--------------------	--------	---

Defaults	Displays summary context information.
----------	---------------------------------------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to display summary context information:
----------	--

```
vsg# where
      admin@firewall
```

Related Commands	Command	Description
	pwd	Displays what directory you are in.

write erase

To erase configurations in persistent memory areas, use the **write erase** command.

write erase [boot | debug]

Syntax Description	boot	(Optional) Erases the boot variable and management 0 interface configurations.
	debug	(Optional) Erases only the debug configuration.

Defaults Erases all configuration in persistent memory except for the boot variable, mgmt0 interface, and debug configuration.

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines When information is corrupted or unusable, use the **write erase** command to erase the startup configuration in the persistent memory. Entering this command returns the device to its initial state, except for the boot variable, mgmt0 interface, and debug configurations. To erase those configurations, specifically use the **boot** and **debug** options.

Examples This example shows how to erase the startup configuration:

```
vsg(config)# write erase
Warning: This command will erase the startup-configuration.
Do you wish to proceed anyway? (y/n) [n] y
```

This example shows how to erase the boot variable and mgmt0 interface configuration in the persistent memory:

```
vsg(config)# write erase boot
```

This example shows how to erase the debug configuration in the persistent memory:

```
vsg(config)# write erase debug
```

■ write erase

Related Commands	Command	Description
	copy running-config startup-config	Copies the running configuration to the startup configuration.
	show running-config	Displays the startup configuration.

zone

To configure a zone definition that is used to build Virtual Machine(VM)-to-zone mapping on the control plane, use the **zone** command to enter the zone configuration submode. To disable this feature, use the **no** form of this command.

zone *zone-name*

no zone *zone-name*

Syntax Description

<i>zone-name</i>	Zone object that is to be configured.
------------------	---------------------------------------

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines

Use the **zone** command to enter the zone configuration submode. The *zone-name* variable specifies a zone object.

The **no** option removes the given zone object and all relevant configurations (for example, condition statements).



Note

Attributes used in a zone condition are all neutral attributes.

Examples

This example shows how to enter the zone configuration submode:

```
vsg(config)# zone DMZ
vsg(config-zone)#
```

Related Commands

Command	Description
condition	Specifies the parameters and rules for the security zone.
cond-match-criteria	Specifies the condition match criteria for a zone.

■ zone