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.
protocol-type	Specific protocol type to be inspected. FTP, RSH, and TFTP are supported.

Command Default

None

Command Modes

Policy configuration (config-policy)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2(1)SM1(5.1)	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:

```
vsm(config-policy)# 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.
module-number	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
5.2.1VSG1(4.1)	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 '$.'
Cisco Nexus Operating System (NX-OS) Software
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

attr-seq-num	Attribute input sequence number.
attr-name	Name of a VM or network attribute (for example, src.vm.name).
value	Designates the use of the following attribute value.
attr-value	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
5.2.1VSG1(4.1)	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

delimiting-character	(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#`
message	(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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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** | f**ormat device-id** | **holdtime** *seconds* | **timer** *seconds*}

no cdp {**advertise** | **enable** | f**ormat 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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set CDP Version 1 as the version to advertise:

```
vsg(config)# cdp advertise v1
```

This example shows how to remove CDP Version 1 as the version to advertise:

```
vsg(config)# no cdp advertise v1
```

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.

Defaults None

Command Modes EXEC

Global configuration (config)

SupportedUserRoles network-admin

network-operator

Command History	Release	Modification
	5.2.1VSG1(4.1)	This command was introduced.

Examples This example shows how to clear the accounting log:

```
vsg# clear accounting log
```

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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear AC driver statistics:

```
vsg# clear ac-driver statistics
```

Related Commands

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.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear the boot variables log:

```
vsg# clear bootvar log
```

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.
slot-number	Slot. The range is from 1 to 66.
port-number	Port number. The range is from 1 to 128.
. *sub-interface*	(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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 the command-line interface (CLI) command history, use the **clear cli** command.

clear cli history

Syntax Description

history	Clears the CLI command history.

Defaults

None

Command Modes

EXEC

Global configuration (config)

Supported User Roles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear the CLI command history:

```
vsg# clear cli history
```

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.
file-name	Core filename.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
slot	Slot. The range is from1 to 66.
port	Port. The range is from 1 to 128.
sub-interface	(Optional) Subinterface number. The range is from 1 to 4094.
loopback	Clears loopback interface counters.
virtual-interface-number	Virtual interface number. The range is from 0 to 1023.
mgmt 0	Clears the management interface.
port-channel	Clears port-channel interfaces.
port-channel-number	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
5.2.1VSG1(4.1)	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

log-name	Name of the debug log.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear the debug log:

```
vsg# clear debug-logfile syslog_debug
```

Related Commands

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

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.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear the FS daemon log:

```
vsg# clear fs-daemon log
```

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.
domain-id	SVS domain ID.
module	(Optional) Clears FTP statistics on a specific module.
module-number	Module number.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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
```

RelatedCommands

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	Clears the installation status log.

Defaults None

Command Modes EXEC

Global configuration (config)

SupportedUserRoles network-admin

network-operator

Command History	Release	Modification
	5.2.1VSG1(4.1)	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)

SupportedUserRoles network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

ip-address	IP address. The format is A.B.C.D.
vrf	(Optional) Clears all virtual routing and forwarding (VRF) ARP IP address statistics.
vrf-name	VRF name. The 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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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	Clears data 0 interface ARP IP address statistics.
vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
vrf-name	VRF name. 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
5.2.1VSG1(4.1)	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

slot-number	Slot number.
port-number	Port number.
vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
vrf-name	VRF name. The range 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
5.2.1VSG1(4.1)	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

loopback-number	Loopback number.
vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
vrf-name	VRF name. The range of characters is from 1 to 32.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
vrf-name	VRF name. The range 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
5.2.1VSG1(4.1)	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

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

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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**}

SyntaxDescription

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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

vrf-name	VRF name. The range 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
5.2.1VSG1(4.1)	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)

Supported User Roles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
vlan-id	(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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
slot-number	Slot number. The range is from 1 to 66.
port-number	Port number. The range is from 1 to 128.
subinterface-number	(Optional) Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears IP address statistics on the loopback interface.
loopback-number	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.
port-channel-number	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
5.2.1VSG1(4.1)	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.
loopback-number	Loopback number. The range is from 0 to 1023.
port-channel	Clears IP routing information on the port channel.
portchannel-number	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 virtual routing and forwarding (VRF) instance.
vrf-name	VRF name. The range 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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear all IP routing information:

```
vsg# 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

vrf	(Optional) Clears virtual fouting and forwarding (VRF) global IP address statistics.
vrf-name	VRF name. The range 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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear global IP statistics:

```
vsg# clear ip traffic
```

RelatedCommands

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
5.2.1VSG1(4.1)	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.
slot-number	Ethernet slot number. The range is from 1 to 66.
/	Slot number port number separator.
port-number	Ethernet port number. The range is from 1 to 128.
.	Port number subinterface number separator.
sub-interface-number	(Optional) Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears the loopback interface.
virtual-interface-number	Virtual interface number. The range is from 0 to 1023.
port-channel	(Optional) Clears the port-channel interface.
port-channel-number	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
5.2.1VSG1(4.1)	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) Multitask 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 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 IPv6 address.
A:B::C:D/LEN	Clears a specific IPv6 address.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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) Multitask 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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

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

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

RelatedCommands

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.
slot-number	Ethernet slot number. The range is from 1 to 66.
/	Slot number port number separator.
port-number	Ethernet port number. The range is from 1 to 128.
.	Port number subinterface number separator.
sub-interface-number	(Optional) Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears the loopback interface.
virtual-interface-number	Virtual interface number. The range is from 0 to 1023.
port-channel	(Optional) Clears the port-channel interface.
port-channel-number	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
5.2.1VSG1(4.1)	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 *vty-name*

Syntax Description		
	vty-name	VTY name. The range of characters is from 1 to 64.

Defaults None

Command Modes EXEC

Global configuration (config)

SupportedUserRoles network-admin

network-operator

Command History	Release	Modification
	5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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)

SupportedUserRoles network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 policy-engine

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

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

SyntaxDescription

policy-name	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
5.2.1VSG1(4.1)	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.
archive-name	(Optional) Archive name.
pid	Clears the process log for a specific process.
pid-number	PID number.
vdc	Clears process logs for a specific Cisco VSG.
vdc-name	VDC name.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

SyntaxDescription

session	Clears the role session information.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear role session information:

```
vsg# clear role session
```

Related Commands

Command	Description
show role	Displays role information.

clear routing *

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

clear routing *

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
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear all routes:

```
vsg# clear routing *
Clearing ALL routes
```

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing A.B.C.D

To clear specific routes, use the **clear routing A.B.C.D** command.

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

Syntax Description

ip-address	IP address. The format is A.B.C.D.
data 0	Clears routing on the data 0 interface.
ethernet	Clears routing on Ethernet interfaces.
slot-number	Slot number. The range is from 1 to 66.
/	Slot and port number separator.
port-number	Port number. The range is from 1 to 128.
.	(Optional) Subinterface separator.
subinterface-number	Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears routing on the loopback interface.
virtual-interface-number	Loopback number. The range is from 0 to 123.
port-channel	(Optional) Clears routing on the port-channel interface.
port-channel-number	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
5.2.1VSG1(4.1)	This command was introduced.

Examples

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 A.B.C.D/LEN

To clear specific routes, use the **clear routing A.B.C.D/LEN** command.

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

Syntax Description

ip-address	IP address. The format is A.B.C.D.
data 0	(Optional) Clears routing on the data 0 interface.
ethernet	(Optional) Clears routing on Ethernet interfaces.
slot-number	Slot number. The range is from 1 to 66.
/	Slot and port number separator.
port-number	Port number. The range is from 1 to 128.
.	Subinterface separator.
subinterface-number	Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears routing on the loopback interface.
virtual-interface-number	Loopback number. The range is from 0 to 123.
port-channel	(Optional) Clears routing on the port-channel interface.
port-channel-number	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
5.2.1VSG1(4.1)	This command was introduced.

Examples

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.
ufdm	Clears the UDFM routing event history.
ufdm-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
5.2.1VSG1(4.1)	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 all IP routes, use the **clear routing ip *** command.

clear routing ip *

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
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear all IP routes:

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

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing ip A.B.C.D

To clear IP routing statistics, use the **clear routing ip A.B.C.D** command.

clear routing ip *ip-address* [**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.
slot-number	Ethernet slot number. The range is from 1 to 66.
/	Slot number port number separator.
port-number	Ethernet port number. The range is from 1 to 128.
.	Port number subinterface number separator.
sub-interface-number	Subinterface number. The range is from 1 to 4094.
loopback	(Optional) Clears the loopback interface.
virtual-interface-number	Virtual interface number. The range is from 0 to 1023.
port-channel	(Optional) Clears the port-channel interface.
port-channel-number	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
5.2.1VSG1(4.1)	This command was introduced.

Examples

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

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

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing ip A.B.C.D/LEN

To clear routing, use the **clear routing ip A.B.C.D/LEN** command.

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

Syntax Description

ip-address	IP address. The format is A.B.C.D.
data 0	Clears the data 0 interface.
ethernet	Clears the Ethernet interface.
slot-number	Ethernet slot number. The range is from 1 to 66.
/	Slot number port number separator.
port-number	Ethernet port number. The range is from 1 to 128.
.	(Optional) Port number subinterface number separator.
sub-interface-number	Subinterface number. The range is from 1 to 4094.
loopback	Clears the loopback interface.
virtual-interface-number	Virtual interface number. The range is from 0 to 1023.
port-channel	Clears the port-channel interface.
port-channel-number	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
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear IP routes:

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

Related Commands

Command	Description
show routing	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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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**}

SyntaxDescription

*	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.
event-history	Clears the IP unicast event history.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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**}

SyntaxDescription

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

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
event-history	Clears the IPv6 routing event history.
unicast	Clears IPv6 unicast routes.

Defaults

None

Command Modes

EXEC

Global configuration (config)

Supported User Roles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

vrf-name	VRF name. The range of characters is from 1 to 32.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear VRF routes:

```
vsg# clear routing vrf vrfTest
```

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
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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 managment *ethernet-address* [*ethernet-address* {**data 0** | **ethernet** *slot-number* **/** *port-number* [**.** *sub-interface*] | **loopback** *loopback-number* | **port-channel** *port-number* [**.** *sub-interface*]}

Syntax Description

ethernet-address	Ethernet address.
data 0	Clears VRF management routes.
ethernet	Clears VRF management routes on Ethernet ports.
slot-number	Ethernet port slot number.
/	Slot and port separator.
port-number	Ethernet port number.
. *sub-interface*	(Optional) Subinterface separator and ethernet subinterface.
loopback	Clears VRF management routes on a loopback.
loopback-number	Loopback number.
port-channel	Clears VRF management routes on a port channel.
port-number	Port-channel number.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

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

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

Syntax Description

ethernet-address	Ethernet address.
data 0	Clears VRF management routes.
ethernet	Clears VRF management routes on Ethernet ports.
slot-number	Ethernet port slot number.
/	Slot and port separator.
port-number	Ethernet port number.
. *sub-interface*	(Optional) Subinterface separator and ethernet subinterface.
loopback	Clears VRF management routes on a loopback.
loopback-number	Loopback number.
port-channel	Clears VRF management routes on a port channel.
port-number	Port-channel number.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
.*sub-interface*	(Optional) Subinterface separator and 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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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
show routing	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 ipv6** 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.
.*sub-interface*	Subinterface separator and ethernet subinterface.
loopback	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
5.2.1VSG1(4.1)	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
show routing	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.
.*sub-interface*	Subinterface separator and ethernet subinterface.
loopback	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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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.
slot-number	Ethernet port slot number.
/	Slot number and port number separator.
port-number	Ethernet port number.
.*sub-interface*	Subinterface separator and ethernet subinterface.
loopback	Clears VRF management unicast routes on a loopback.
loopback-number	Loopback number.
port-channel	Clears VRF management unicast routes on a port channel.
port-number	Port-channel number.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

SyntaxDescription

logfile	Clears the scheduler log.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to clear the scheduler log file:

```
vsg# clear scheduler logfile
```

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
5.2.1VSG1(4.1)	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*]}

SyntaxDescription

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.
id	DVS domain identification number.
module	(Optional) Clears module information.
module-number	Module number.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 sockets

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

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

SyntaxDescription

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
5.2.1VSG1(4.1)	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

SyntaxDescription

hosts	Clears the SSH host session.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

application-name	Application container name.
instance	Clears the application container instance.
instance-number	Application container instance number.
fe	(Optional) Clears the functional element.
fe-name	Functional element name.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 (FE).
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
5.2.1VSG1(4.1)	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		
	user-id	User identification number.

Defaults None

Command Modes EXEC

Global configuration (config)

SupportedUserRoles network-admin

network-operator

Command History	Release	Modification
	5.2.1VSG1(4.1)	This command was introduced.

Examples This example shows how to clear a user session:

```
vsg# clear user user1
```

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

variable-name	Variable name. The name is alphanumeric, case sensitive, and has a maximum of 31 characters.
variable-text	Variable text. The text is alphanumeric, can contain spaces, and has a maximum of 200 characters.

Defaults

None

Command Modes

EXEC

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2.1VSG1(4.1)	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
show cli variables	Displays the CLI variables.

clock set

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

clock set *time day month year*

Syntax Description

time	Time of the day. The format is *HH*:*MM*:*SS*.
day	Day of the month. The range is from 1 to 31.
month	Month of the year. The values are **January**, **February**, **March**, **April**, **May**, **June**, **July**, **August**, **September**, **October**, **November**, or **December**.
year	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
5.2.1VSG1(4.1)	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 2013
```

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

attribute-name	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 that it 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.
attribute-value1	Value of an attribute (for example, 10.10.10.1) or name of an object-group (for example, “ipaddr-group”).
attribute-value2	(Optional) Value of an attribute or the netmask of a network address.

Command Default

None

Command Modes

Policy configuration (config-policy)

Zone configuration (config-zone)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2(1)VSG1(4.1)	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 usd 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 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

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	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

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	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:

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

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

Syntax Description

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **ftp:** • **scp:** • **sftp:** • **tftp:**

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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:

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

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

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to copy a file from a remote debug directory to a local volatile directory:

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

Related Commandsv

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

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **debug:** • **log:** • **modflash:** • **nvram:** • **system:** • **volatile:**

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to transfer a file from a remote FTP directory to a local bootflash directory:

```
vsg# copy ftp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin bootflash:/
```

Related Commands

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

copy log:

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

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

Syntax Description

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	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:

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

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

Syntax Description

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	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:

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

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

Syntax Description

//file-address	Address of the NVRAM files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	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

destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **ftp:** • **nvram:** • **scp:** • **sftp:** • **tftp:** • **volatile:**
all-vdc	(Optional) Copies to all virtual device contexts (VDC).

Defaults

None

Command Modes

EXEC

Global configuration

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2.1VSG1(4.1)	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

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **debug:** • **log:** • **modflash:** • **nvram:** • **running-config** • **startup-config** • **system:** • **volatile:**

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

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

```
vsg# copy scp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin volatile:/
```

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

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **debug:** • **log:** • **modflash:** • **nvram:** • **system:** • **volatile:**

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to transfer a file from a remote SFTP directory to a local bootflash directory:

```
vsg# copy sftp://jjones@209.193.10.11/ps/jjones-rtg/vsg-dplug.bin bootflash:/
```

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

destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **ftp:** • **nvram:** • **scp:** • **sftp:** • **tftp:** • **volatile:**
all-vdc	(Optional) Copies to all virtual device contexts (VDCs).

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2.1VSG1(4.1)	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	Copies a running configuration to a specified destination.

copy system:

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

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

Syntax Description

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. You use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	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:

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

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

Syntax Description

//file-address	Address of the files to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **bootflash:** • **debug:** • **log:** • **modflash:** • **nvram:** • **system:** • **volatile:**

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

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

```
vsg# copy tftp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin bootflash:/
```

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

//file-address	Address of the file to copy.
destination-address	Address of the destination directory. Use one of the following directories in the destination address: • **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
5.2.1VSG1(4.1)	This command was introduced.

Examples

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

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

Related Commands

Command	Description
copy bootflash:	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

filename	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.
bytes	(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
5.2.1VSG1(4.1)	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:

```
vsg# debug logfile debug_log
```

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
5.2.1VSG1(4.1)	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

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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.
text	(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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 2013-08-12-23.29.24.
```

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

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)

SupportedUserRoles

network-admin

network-operator

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	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.
counter-name	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
5.2.1VSG1(4.1)	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 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** | **vpath-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 display of packet details events.
pkt-error	Enables display of packet errors events.
pkt-info	Enables 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
5.2.1VSG1(4.1)	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)

SupportedUserRoles

network-admin

network-operator

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	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		
	filename-prefix	First part or all of a filename. The filename prefix is case sensitive.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

filename	Name of the file.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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_cnfg.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

filename	Filename.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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_cnfg.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 {**kickstart**}

Syntax Description

kickstart	Specifies a kickstart image.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to install an 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.
number	Data interface number. The number is 0.
ethernet	Specifies the slot and port number for the Ethernet interface.
slot/port	Slot and port number of the interface.
loopback	Specifies a virtual interface number.
number	Virtual interface number. The range is from 0 to 1023.
mgmt	Specifies the management interface number.
number	Management interface number. The number is 0.
port-channel	Specifies a port-channel interface number.
channel-number	Port-channel interface number. The range is from 0 to 1023.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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
```

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 *seconds*	Specifies the Address Resolution Protocol (ARP) timeout. The range is from 60 to 28800.
domain-list *name*	Specifies an additional domain name. The name has a maximum of 64 characters.
domain-lookup	Specifies the domain name server (DNS).
host *name*	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 Trivial File Transfer Protocol (TFTP).

Defaults

1500

Command Modes

Global configuration

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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** | **vty**}

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.
vty	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
5.2.1VSG1(4.1)	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 *severity-level*	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 *name*	Configures the specified log file that stores system messages. To disable, use the **no logging logfile** command.
module *severity-level*	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 *severity-level*	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 *number*	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 *time-type*	Sets the unit of time used for the system messages timestamp, 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
5.2.1VSG1(4.1)	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.
attribute-value1	Value of the attribute such as 10.10.10.10 or name of an object-group such as “ipaddr-group.”
attribute-value2	(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
5.2(1)VSG1(4.1)	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-policy)# match 1 eq 80
vsg(config-policy)# match 2 eq 443
vsg(config-policy)# 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
5.2.1VSG1(4.1)	This command was introduced for the Cisco VSG.

Examples

This example shows how to create the bootflash: directory:

```
vsg# mkdir 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.

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
5.2.1VSG1(4.1)	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 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

group-name	Name of the object group.
attribute-name	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)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2(1)VSG1(4.1)	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 reduce the number of rule configurations to accommodate the OR condition fir HTTP|HTTPS ports:

```
vsg(config)# object-group http_ports net.port
vsg(config-object-group)#
```

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
5.2.1VSG1(4.1)	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)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2(1)VSG1(4.1)	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
5.2.1VSG1(4.1)	This command was introduced for the Cisco VSG.

Examples

This example shows how to view the current directory:

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

RelatedCommands

Command	Description
cd	Changes the current directory.

reload

To reboot both the primary and secondary Cisco VSGs 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
5.2.1VSG1(4.1)	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
2013 Jan 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

module	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
5.2.1VSG1(4.1)	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, which is 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
2013 May 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.

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
5.2.1VSG1(4.1)	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 *name*	Specifies a role for a feature group. The name can be any alphanumeric string up to 32 characters.
name *name*	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

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

rule-name	Rule object.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2(1)VSG1(4.1)	This command was introduced.

Usage Guidelines

Use the **rule** comand 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)# 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)# 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)# 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)# 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)# action 1 deny
vsg(config-rule)# action 2 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.

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

>	(Optional) Redirects the output to a file.
bootflash:	(Optional) Designates the destination file system path; in this case, the bootflash: directory.
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.
>>	(Optional) Redirects the output to a file in append mode.
|	(Optional) Pipes the command output to a filter.
volatile:	(Optional) Designates the destination file system path; in this case, the volatile: directory.
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).

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.
filename	(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
5.2.1VSG1(4.1)	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

message	Message.
session	Specifies a specific session.
device	Device type.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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 HA role[standalone/primary/secondary]: standalone


  Enter the ha id<1-4095>: 400


  Saving boot configuration. Please wait...

[########################################] 100%
Copy complete, now saving to disk (please wait)...


         ---- 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]:

  Configure read-only SNMP community string (yes/no) [n]:

  Enter the Virtual Service Node (VSN) name [VSG]: VSG

  Continue with Out-of-band (mgmt0) management configuration? (yes/no) [y]:

    Mgmt0 IPv4 address :

  Configure the default gateway? (yes/no) [y]:

    IPv4 address of the default gateway :

  Configure the DNS IPv4 address? (yes/no) [n]:

  Enable the telnet service? (yes/no) [n]:

  Configure the ntp server? (yes/no) [n]:

  Continue with Policy Agent Configuration? (yes/no) [n]:

The following configuration will be applied:
hostname VSG
  no telnet server enable
  ssh key rsa 2048 force
  ssh server enable
  feature http-server
    ha-pair id 400

Would you like to edit the configuration? (yes/no) [n]:

Use this configuration and save it? (yes/no) [y]:
```

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		
	time	Sleep time, in seconds. The range is from 0 to 2147483647.

Defaults

Sleep time is not set.

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Usage Guidelines

When you set *time* to 0, sleep is disabled.

Examples

This example shows how to set a sleep time:

```
vsg# sleep 100
```

This example shows how to disable sleep:

```
vsg# sleep 0
```

Related Commands

Command	Description
reload	Reboots the Cisco VSG.

ssh

To create a Secure Shell (SSH) session, use the **ssh** command.

ssh {*hostname*| **connect** | **name**}

Syntax Description

hostname	Hostname or user@hostname for the SSH session. The hostname is not case sensitive. The maximum number of characters is 64.
connect	Connects to a named remote host.
name	Specifies the name of the SSH connection.

Defaults

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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

tftp:	Specifies the Trivial File Transfer Protocol (TFTP) protocol.
server	Destination server.
ip-address	Destination IP address.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to return to system-level default values:

```
vsg# system default switchport shutdown
```

Related Commands

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
5.2.1VSG1(4.1)	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

SyntaDescription

check	Runs a consistency check on the compact flash.
bootflash	Checks the internal bootflash.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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.
service-name	Service name.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 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
5.2.1VSG1(4.1)	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.
minor-memory-threshold	Minor threshold as a percentage of memory. The range is from 50 to 100.
severe	Sets the severe memory threshold.
severe memory-threshold	Severe threshold as a percentage of memory. The range is from 50 to 100.
critical	Sets the critical memory threshold.
critical-memory-threshold	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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 persistent storage service (PSS) files, use the **system pss** command.

system pss shrink

Syntax Description

shrink	Shrinks the PSS files.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin
network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set a system standby manual boot:

```
vsg# system standby manual-boot
```

Related Commands

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

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

mask	Mask name.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin

Command History

Release	Modification
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to enable a system 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.
filename	Name of the file.
number	(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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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

ipv4-address	IPv4 address of the remote device.
hostname	Hostname of the remote device. The name is alphanumeric, case sensitive, and has a maximum of 64 characters.
port-number	(Optional) Port number for the Telnet session. The range is from 1 to 65535.
vrf *vrf-name*	(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)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to start a Telnet session:

```
vsg# telnet 10.10.1.1 vrf management
```

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

word	Name of the alias.
persist	Alias configuration saved.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	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 persist

no terminal color persist

Syntax Description

persist	Specifies the designator that saves the configuration.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set the colorization of the command line:

```
vsg# terminal color 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	Specifies the designator that saves the configuration.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to turn off the "Are you sure?" question when a command is entered:

```
vsg# terminal dont-ask persist
```

Related Commands

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
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set terminal history properties:

```
vsg# terminal history no-exec-in-config
```

Related Commands

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		
	number	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
	5.2.1VSG1(4.1)	This command was introduced.

Usage Guidelines

Set *number* to 0 to disable pausing.

Examples

This example shows how to set the number of lines that appear on the screen:

```
vsg# terminal length 60
```

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
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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
5.2.1VSG1(4.1)	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

time	Timeout time, in seconds. The range is from 0 to 525600.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Usage Guidelines

Set *time* 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

type	Terminal type.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to specify the terminal type:

```
vsg# terminal terminal-type vt100
```

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
5.2.1VSG1(4.1)	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.
	word	Username.

Defaults None

Command Modes EXEC

Global configuration (config)

SupportedUserRoles network-admin

network-operator

Command History	Release	Modification
	5.2.1VSG1(4.1)	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		
	width	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

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set the terminal width:

```
vsg# terminal width 60
```

Related Commands

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	Simulates the policy engine lookup.
simulate-zone-req	Simulates the policy engine zone.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to test the policy engine:

```
vsg# test policy-engine simulate-zone-req
```

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 is used.

test-policy-engine simulate-pe-req policy *policy-name*

Syntax Description		
	policy-name	Policy to be tested or verified for configuration parameters.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	5.2(1)VSG1(4.1)	This command was introduced.

Examples This example shows how to test the ext-company policy.

```
vsm(config)# test policy-engine simulate-pe-req policy ext-company
```

Related Commands	Command	Description
	attribute	Specifies the particular attribute to be tested in the policy configuration.

traceroute

To discover routes, use the **traceroute** command.

traceroute {*A.B.C.D.* | *host-name*} [**source** *src-ipv4-addr* | **vrf** *vrf-name* | **show-mpls-hops**]

Syntax Description

A.B.C.D. | *host-name*	IPv4 address or hostname of the destination device. The name is case sensitive.
vrf *vrf-name*	(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 *src-ipv4-addr*	(Optional) Specifies a source IPv4 address. The format is *A.B.C.D*.

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)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Usage Guidelines

Use the **traceroute6** 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# traceroute 172.28.255.18 vrf management
traceroute 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
traceroute6	Discovers the route to a device using IPv6 addressing.

username *name* expire

To set an expiration date for the username, use the **username** *name* **expire** command.

username *name* **expire** {e*xpiration-date* [**role** {**network-admin** | **network-operator**}]}

Syntax Description

name	Username.
e*xpiration-date*	Expiration date. The format is YYYY-MM-DD. The maximum size is 10.
role	(Optional) Specifies the user role.
network-admin	Specifies the network administrator role.
network-operator	Specifies the network operator role.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set an expiration date for the username:

```
vsg(config)# username user10 expire 2013-02-28 role network-admin
```

Related Commands

Command	Description
show users	Displays users.

username *name* password

To set a password for the username, use the **username** *name* **password** command.

username *name* **password** {**0** *password* | **5** *password* | *password*} [**expire** *expiration-date* [**role** {**network-admin** | **operator-admin**}] | **role** {**network-admin** | **operator-admin**}]

Syntax Description

name	Username.
0 *password*	Specifies a password. **0** denotes that the password that follows should be set in clear text. The maximum size for *password* is 64 characters.
5 *password*	Specifies a password. **5** denotes that the password that follows should be encrypted. The maximum size for *password* is 64 characters.
password	Password in clear text. The maximum size for *password* is 64 characters.
expire e*xpiration-date*	(Optional) Specifies the expiration date. The format is YYYY-MM-DD. The maximum size is 10 characters.
role	(Optional) Specifies the user role.
network-admin	Specifies the network administrator role.
network-operator	Specifies the network operator role.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set a password for the username:

```
vsg(config)# username user10 password 5 q0w9e8R7
```

Related Commands

Command	Description
show users	Displays users.

username *name* role

To set a role for the username, use the **username** *name* **role** command.

username *name* **role** {**network-admin** | **network-operator**}

Syntax Description

name	Username.
network-admin	Specifies the network administrator role.
network-operator	Specifies the network operator role.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set a role for the username:

```
vsg(config)# username user10 role network-admin
```

Related Commands

Command	Description
show users	Displays users.

username *name* sshkey

To set a Secure Shell (SSH) key for the username, use the **username** *name* **sshkey** command.

username *name* **sshkey** {**line** | **file** {**bootflash:**//*file-address* | **volatile:**//*file-address*}}

Syntax Description

name	Username.
line	Specifies an SSH key that is user defined.
bootflash: *//file-address*	Specifies the address of the SSH key file in the bootflash directory.
volatile: *//file-address*	Specifies the address of the SSH key file in the volatile directory.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

CommandHistory

Release	Modification
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to set an SSH key for the username:

```
vsg(config)# username bob sshkey file volatile://jjones@209.193.10.10/ws/jsmith-sjc/sshKey
```

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
5.2.1VSG1(4.1)	This command was introduced.

Examples

This example shows how to display summary context information:

```
vsg# where
        admin@firewall
```

RelatedCommands

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
5.2.1VSG1(4.1)	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
```

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 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

zone-name	Zone object that is to be configured.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
5.2(1)VSG1(4.1)	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.