



Cisco Virtual Security Gateway for Microsoft Hyper-V Command Reference, Release 5.2(1)VSG2(1.1a)

January 31, 2014

Cisco Systems, Inc.

www.cisco.com

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at www.cisco.com/go/offices.

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

Cisco Virtual Security Gateway for Microsoft Hyper-V Command Reference, Release 5.2(1)VSG2(1.1a)
© 2014 Cisco Systems, Inc. All rights reserved.



Preface xi

Audience xi

Organization xi

Document Conventions xii

Documentation Feedback xii

Obtaining Documentation and Submitting a Service Request xiii

CHAPTER 1

Cisco Nexus 1000V Series Switch Commands 1-1

capability l3-vservice 1-2

clear vservice connection 1-3

clear vservice statistics 1-4

copy running-config startup-config 1-5

log-level 1-6

org 1-7

ping vsn 1-8

policy-agent-image 1-11

pop 1-12

port-profile 1-13

push 1-14

registration-ip 1-15

shared-secret 1-16

show org port brief 1-17

show running-config 1-18

show running-config vservice node 1-22

show nsc-pa status 1-24

show vservice brief 1-25

show vservice connection 1-27

show vservice detail 1-29

show vservice node mac brief 1-31

show vservice node brief 1-32

show vservice node detail 1-34

show vservice port brief 1-36

- show vservice port detail 1-38
- show vservice statistics 1-40
- state (port profile) 1-42
- switchport mode 1-43
- switchport access vlan 1-44
- tcp state-checks 1-45
- vlan 1-47
- vservice 1-48
- vservice global type vsg 1-49
- vservice node 1-50
- nsc-policy-agent 1-52

CHAPTER 2

Cisco Virtual Security Gateway Commands 2-1

- action 2-2
- attach 2-3
- attribute 2-4
- banner motd 2-5
- boot 2-7
- cd 2-8
- cdp 2-9
- clear accounting 2-10
- clear ac-driver 2-11
- clear bootvar 2-12
- clear cdp 2-13
- clear cli 2-14
- clear cores 2-15
- clear debug logfile 2-16
- clear fs-daemon 2-17
- clear inspect 2-18
- clear install 2-19
- clear ip adjacency statistics 2-20
- clear ip arp 2-21
- clear ip arp mgmt 2-22
- clear ip arp statistics 2-23
- clear ip arp vrf 2-24
- clear ip interface 2-25

clear ip route	2-26
clear ip traffic	2-27
clear ipv6 adjacency statistics	2-28
clear ipv6 icmp interface statistics	2-29
clear ipv6 icmp mld groups	2-30
clear ipv6 icmp mld route	2-31
<i>clear ipv6 nd interface statistics</i>	2-32
clear line	2-33
clear logging	2-34
clear ntp	2-35
clear nvram	2-36
clear pktmgr client	2-37
clear pktmgr interface	2-38
clear policy-engine	2-39
clear processes	2-40
clear rmon	2-41
clear role	2-42
clear routing *	2-43
clear routing A.B.C.D	2-44
clear routing A.B.C.D/LEN	2-45
clear routing event-history	2-46
clear routing ip *	2-47
clear routing ip A.B.C.D	2-48
clear routing ip A.B.C.D/LEN	2-49
clear routing ip event-history	2-50
clear routing ip unicast	2-52
clear routing ipv4	2-53
clear routing ipv6	2-54
clear routing vrf	2-55
clear routing vrf default	2-56
clear routing vrf management *	2-57
clear routing vrf management	2-58
clear routing vrf management ip	2-60
clear routing vrf management ipv4	2-61
clear routing vrf management ipv6	2-62

clear routing vrf management unicast 2-63

clear screen 2-65

clear service-path 2-66

clear snmp 2-67

clear sockets 2-68

clear ssh 2-69

clear system internal ac application 2-70

clear system internal ac ipc-stats 2-71

clear user 2-72

cli 2-73

clock set 2-75

condition 2-76

configure 2-78

copy bootflash: 2-79

copy core: 2-81

copy debug: 2-82

copy ftp: 2-84

copy log: 2-85

copy modflash: 2-87

copy nvram: 2-89

copy running-config 2-91

copy scp: 2-92

copy sftp: 2-93

copy startup-config 2-94

copy system: 2-95

copy tftp: 2-97

copy volatile: 2-98

debug logfile 2-100

debug logging 2-102

delete 2-103

dir 2-104

echo 2-105

end 2-107

event 2-108

event-log service-path 2-109

exit	2-111
find	2-112
gunzip	2-113
gzip	2-114
install	2-115
interface	2-116
ip	2-117
line	2-119
logging	2-120
match	2-122
mkdir (VSG)	2-124
ntp sync-retry	2-125
object-group	2-126
password strength-check	2-127
policy	2-128
pwd	2-130
reload	2-131
reload module	2-132
rmdir	2-133
role	2-134
rule	2-135
run-script (VSG)	2-137
send	2-138
setup	2-139
sleep	2-141
ssh	2-142
ssh key	2-143
system cores	2-144
system default switchport	2-145
system hap-reset	2-146
system heartbeat	2-147
system internal	2-148
system jumbomtu	2-149
system memlog	2-150
system memory-thresholds	2-151

- system pss 2-152
- system redundancy 2-153
- system standby 2-154
- system startup-config 2-155
- system statistics 2-156
- system switchover 2-157
- system trace 2-158
- system watchdog kgdb 2-159
- tail 2-160
- telnet 2-162
- terminal alias 2-163
- terminal color 2-164
- terminal dont-ask 2-165
- terminal edit-mode 2-166
- terminal event-manager 2-167
- terminal history 2-168
- terminal length 2-169
- terminal log-all 2-170
- terminal monitor 2-171
- terminal output 2-172
- terminal redirection-mode 2-173
- terminal session-timeout 2-174
- terminal terminal-type 2-175
- terminal tree-update 2-176
- terminal verify-only 2-177
- terminal width 2-178
- test policy-engine 2-179
- test policy-engine simulate-pe-req policy 2-180
- traceroute 2-181
- username name password 2-182
- where 2-183
- write erase 2-184
- zone 2-185

CHAPTER 3

Cisco Virtual Security Gateway Show Commands 3-1

- show aaa 3-1

show ac-driver	3-4
show accounting	3-6
show banner	3-8
show boot	3-9
show cdp	3-11
show cli	3-13
show clock	3-15
show copyright	3-16
show cores	3-18
show debug	3-19
show debug-filter	3-21
show event-log	3-22
show event manager internal	3-23
show feature	3-26
show file	3-28
show hardware	3-29
show hostname	3-31
show hosts	3-32
show http-server	3-33
show incompatibility	3-34
show inspect ftp statistics	3-35
show install all	3-36
show interface	3-37
show ip	3-39
show ipv6	3-41
show kernel internal	3-43
show line	3-45
show logging	3-47
show ntp	3-50
show password	3-52
show policy-engine	3-53
show processes	3-54
show redundancy status	3-58
show resource	3-60
show role	3-62

show running-config 3-64

show service-path connection 3-68

show service-path statistics 3-70

show snmp 3-72

show sockets 3-74

show ssh 3-76

show startup-config 3-78

show system 3-81

show tech-support 3-83

show telnet server 3-88

show terminal 3-89

show user-account 3-91

show users 3-92

show version 3-93

show nsc-pa 3-94

show vsg dvport 3-95

show vsg ip-binding 3-96

show vsg security-profile 3-97

show vsg vm 3-99

show vsg vm name 3-101

show vsg vm uuid 3-103

show vsg zone 3-104

show xml server 3-105

INDEX



Preface

This preface describes the audience, organization, and conventions of the *Cisco Virtual Security Gateway for Microsoft Hyper-V Command Reference, Release 5.2(1)VSG2(1.1a)*. It also provides information on how to obtain the related documentation.

This preface includes the following sections:

- [Audience, page xi](#)
- [Organization, page xi](#)
- [Document Conventions, page xii](#)
- [Documentation Feedback, page xii](#)
- [Obtaining Documentation and Submitting a Service Request, page xiii](#)

Audience

This publication is for network administrators with the following experience and knowledge:

- An understanding of virtualization
- Microsoft SCVMM
- Virtual machines

Organization

This document is organized into the following chapters:

Chapter and Title	Description
Chapter 1, “Cisco Nexus 1000V Series Switch Commands”	Provides information about the Cisco VSG commands found on the Cisco Nexus 1000V Series switch and the Cisco Cloud Services Platform networking appliance.
Chapter 2, “Cisco Virtual Security Gateway Commands”	Provides information about Cisco VSG commands.
Chapter 3, “Cisco Virtual Security Gateway Show Commands”	Provides information about Cisco VSG show commands.

Document Conventions

Command descriptions use these conventions:

Convention	Description
boldface font	Commands and keywords are in boldface.
<i>italic font</i>	Arguments for which you supply values are in italics.
[]	Elements in square brackets are optional.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

Convention	Description
<code>screen font</code>	Terminal sessions and information that the switch displays are in screen font.
boldface screen font	Information you must enter is in boldface screen font.
<i>italic screen font</i>	Arguments for which you supply values are in italic screen font.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:



Note

Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.



Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.



Tip

Means the following information will help you solve a problem.

Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, please send your comments to vsg-docfeedback@cisco.com. We appreciate your feedback.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.





CHAPTER 1

Cisco Nexus 1000V Series Switch Commands

This chapter provides information about the Cisco Virtual Security Gateway (VSG) related commands on the Cisco Nexus 1000V Series switch and the Cisco Cloud Services Platform networking appliance.

capability l3-vservice

To configure a port profile to be used with l3-vn-service, use the **capability l3-vservice** command. To remove the capability from a port profile, use the **no** form of this command.

capability l3-vservice

no capability l3-vservice

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes port-profile configuration (config-port-prof)

SupportedUserRoles network-admin

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples This example shows how to configure a port profile to be used with l3-vservice:

```
n1000v# config t
n1000v(config)# port-profile testprofile
n1000v(config-port-prof)# capability l3-vservice
```

This example shows how to remove the l3-vservice configuration from the port profile:

```
n1000v# config t
n1000v(config)# port-profile testprofile
n1000v(config-port-prof)# no capability l3-vservice
```

Related Commands	Command	Description
	show port-profile	Displays information about the port profiles.

clear vservice connection

To clear the Cisco vservice connections, use the **clear vservice connection** command.

```
clear vservice connection [module module-num]
```

Syntax Description	module	(Optional) Clears a specific module.
	<i>module-num</i>	Module number. The range is from 3 to 66.

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

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

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples	This example shows how to clear Cisco VSG connections: <pre>vsm# clear vservice connection</pre>
----------	--

Related Commands	Command	Description
	show vservice connection	Displays current vservice connection.

clear vservice statistics

To clear the Cisco vservice statistics, use the **clear vservice statistics** command.

```
clear vservice statistics [module module-number | ip <ip-address>]
```

Syntax Description	module	(Optional) Clears a module.
	<i>module-number</i>	Module number. The range is from 3 to 66.
	ip	IP address.
	<i>ip-address</i>	IP address.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples This example shows how to clear Cisco VSG vservice statistics for existing modules:

```
vsm# clear vservice statistics
Cleared statistics successfully in module 4
Cleared statistics successfully in module 6
```

Related Commands	Command	Description
	show vservice statistics	Display current vservice statistics.

copy running-config startup-config

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

copy running-config startup-config

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines Use this command to save configuration changes in the running configuration to the startup configuration in persistent memory. When a device reload or switchover occurs, the saved configuration is applied.

Examples This example shows how to save the running configuration to the startup configuration:

```
vsm# copy running-config startup-config
[#####] 100%
```

Related Commands	Command	Description
	show running-config	Displays the running configuration.
	show running-config diff	Displays the differences between the running configuration and the startup configuration.
	show startup-config	Displays the startup configuration.
	write erase	Erases the startup configuration in the persistent memory.

log-level

To set logging severity levels for the Cisco Prime Network Services Controller (Prime NSC) policy agent, use the **log-level** command. To reset logging levels, use the **no** form of this command.

```
log-level {critical | debug0 | debug1 | debug2 | debug3 | debug4 | info | major | minor | warn}
no {critical | debug0 | debug1 | debug2 | debug3 | debug4 | info | major | minor | warn}
```

Syntax Description

critical	Sets the logging level to critical.
debug0	Sets the logging level to debug 0.
debug1	Sets the logging level to debug 1.
debug2	Sets the logging level to debug 2.
debug3	Sets the logging level to debug 3.
debug4	Sets the logging level to debug 4.
info	Sets the logging level to information.
major	Sets the logging level to major.
minor	Sets the logging level to minor.
warn	Sets the logging level to warning.

Command Default

None

Command Modes

Cisco Prime NSC policy agent configuration (config-nsc-policy-agent)

Supported User Roles

network-admin

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Examples

This example shows how to set the logging level to critical:

```
vsm# configure
vsm(config)# nsc-policy-agent
vsm(config-nsc-policy-agent)# log-level critical
```

Related Commands

Command	Description
nsc-policy-agent	Enables the Cisco Prime NSC policy agent configuration mode.

org

To create a Cisco Prime Network Services Controller (Prime NSC) organization (domain), use the **org** command. To delete a Cisco Prime NSC organization, use the **no** form of this command.

org *organization-name*

no org [*organization-name*]

Syntax Description	<i>organization-name</i>	Organization name. The number of characters is from 1 to 251.
--------------------	--------------------------	---

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

Command Modes	Port profile configuration (config-port-prof)
---------------	---

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines	<p>Cisco Prime NSC organizations are Cisco Prime NSC domains.</p> <p>You can hierarchically manage Cisco Prime NSC organizations. A user that is assigned at a top level organization has automatic access to all organizations under it. For example, an engineering organization can contain a software engineering organization and a hardware engineering organization. A locale that contains only the software engineering organization has access to system resources only within that organization. However, a locale that contains the engineering organization has access to the resources for both the software engineering and hardware engineering organizations.</p>
------------------	--

Examples	<p>This example shows how to create an organization:</p> <pre>vsm# configure Enter configuration commands, one per line. End with CNTL/Z. vsm(config)# port-profile pP1 vsm(config-port-prof)# org root/tenant1 vsm(config-port-prof)#</pre>
----------	---

Related Commands	Command	Description
	vservice	Sets the IP address for a virtual firewall.

ping vsn

To ping the virtual service nodes (VSN) from the vPath, use the **ping vsn** command. There is no **no** form of this command.

```
ping vsn {all | {ip <ip-addr>}} src-module {all | vpath-all | <module-num>} [timeout <secs>]
[count {unlimited | <count>}]
```

Syntax Description		
ip		Designates that a specific IP address is to be pinged.
<i>ip-addr</i>		IP address of the specific VSN.
all		Indicates that all VSNs must be pinged.
src-module		Designates the source module for the ping.
<i>module-num</i>		Module number for the source path.
vpath all		Designates that all source vPaths are to be used.
timeout		(Optional) Designates a timeout.
<i>secs</i>		Duration of the pinging operation in seconds.
count		(Optional) Designates a count of pings.
<i>count</i>		Number of pings to be counted.

Command Default None

Command Modes EXEC

Supported User Roles network-admin

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines There is no **no** form of this command.

Examples This example shows how to ping a Cisco VSG:

```
vsm# ping ?
<CR>
  A.B.C.D or Hostname  IP address of remote system
  WORD                Enter Hostname
  vsn                 VSNS to be pinged
vsm# ping vsn

Input parameters:
• vsn : VSNS to be pinged.
```

- o all : All VSNs that are currently associated to at least one VM. In other words, all VSNs specified in port-profiles that are bound to at least one VM.
- o ip-addr <ip-addr> : All VSNs configured with this IP address.
- src-module : Source modules to originate ping request from.
 - o all : All online modules.
 - o vpath-all : All modules having VMs associated to port-profiles that has vn-service defined.
 - o <module-num> : A online module number.
- timeout <secs> : Time to wait for response from VSNs, in seconds. Default is 1 sec.
- count : Number of ping packets to be sent.
 - o <count> : Specifies number of ping packets to be sent. Default is 5. Min 1, Max 2147483647.
 - o unlimited : Send ping packets until command is stopped.

Specify the IP address if the VSN to be pinged is not associated to any VMs yet.

In the output, the status of the ping request for each VSN for each module is shown. On a successful ping, the round-trip time of the ping request/response for a VSN is shown in microseconds next to the module number. On a failure, the failure message is shown next to the module number.

Various forms:

```
ping vsn all src-module all           (Ping all VSNs from all modules)
ping vsn all src-module vpath-all    (Ping all VSNs from all modules having
VMs associated to VSNs)
ping vsn all src-module 3            (Ping all VSNs from the specified module)
ping vsn ip 106.1.1.1 src-module all  (Ping specified VSN from all modules)
ping vsn ip 106.1.1.1 src-module vpath-all (Ping specified VSN from all modules
having VMs associated to VSNs)
```

This example shows that the timeout and count options apply to all of the above commands:

```
ping vsn all src-vpath all timeout 2 count 10
ping vsn all ip 106.1.1.1 count unlimited
```

Errors:

VSN response timeout - VSN is down, not reachable or not responding.

VSN ARP not resolved - VEM couldn't resolve MAC address of VSN.

no response from VEM - VEM is not sending ping response to VSM. Can happen when VEM is down and VSM not detected it yet.

These examples show how to display all of the source module traffic:

```
vsm# ping vsn all src-module all
ping vsn 10.1.1.44 vlan 0 from module 9 10 11 12, seq=0 timeout=1-sec
module(usec) : 9(508)
module(failed) : 10(VSN ARP not resolved) 11(VSN ARP not resolved)
12(VSN ARP not resolved)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=0 timeout=1-sec
module(usec) : 9(974) 11(987) 12(1007)
module(failed) : 10(VSN ARP not resolved)

ping vsn 10.1.1.44 vlan 0 from module 9 10 11 12, seq=1 timeout=1-sec
module(usec) : 9(277) 10(436) 11(270) 12(399)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=1 timeout=1-sec
module(usec) : 9(376) 10(606) 11(468) 12(622)

ping vsn 10.1.1.44 vlan 0 from module 9 10 11 12, seq=2 timeout=1-sec
module(usec) : 9(272) 10(389) 11(318) 12(357)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=2 timeout=1-sec
module(usec) : 9(428) 10(632) 11(586) 12(594)

ping vsn 10.1.1.44 vlan 0 from module 9 10 11 12, seq=3 timeout=1-sec
module(usec) : 9(284) 10(426) 11(331) 12(387)
```

```

ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=3 timeout=1-sec
  module(usec)   :  9(414) 10(663) 11(644) 12(698)

ping vsn 10.1.1.44 vlan 0 from module 9 10 11 12, seq=4 timeout=1-sec
  module(usec)   :  9(278) 10(479) 11(334) 12(469)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=4 timeout=1-sec
  module(usec)   :  9(397) 10(613) 11(560) 12(593)

vsm# ping vsn ip 10.1.1.40 src-module vpath-all
ping vsn 10.1.1.40 vlan 0 from module 9 11 12, seq=0 timeout=1-sec
  module(usec)   :  9(698) 11(701) 12(826)

ping vsn 10.1.1.40 vlan 0 from module 9 11 12, seq=1 timeout=1-sec
  module(usec)   :  9(461) 11(573) 12(714)

ping vsn 10.1.1.40 vlan 0 from module 9 11 12, seq=2 timeout=1-sec
  module(usec)   :  9(447) 11(569) 12(598)

ping vsn 10.1.1.40 vlan 0 from module 9 11 12, seq=3 timeout=1-sec
  module(usec)   :  9(334) 11(702) 12(559)

ping vsn 10.1.1.40 vlan 0 from module 9 11 12, seq=4 timeout=1-sec
  module(usec)   :  9(387) 11(558) 12(597)

vsm#

```

Related Commands

Command	Description
ping	Activates a signal to verify connections with other devices on a path.

policy-agent-image

To designate the policy agent image local URL as bootflash, use the **policy-agent-image** command. To remove the designation, use the **no** form of the command.

policy-agent-image bootflash:

no policy-agent-image bootflash:

Syntax Description	bootflash:	Designates the policy agent image local URL as bootflash.
Command Default	None	
Command Modes	Prime NSC policy agent configuration (config-nsc-policy-agent)	
Supported User Roles	network-admin	
Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.
Examples	<p>This example shows how to designate the local URL that contains the policy agent image:</p> <pre>vsm# configure vsm(config)# nsc-policy-agent vsm(config-nsc-policy-agent)# policy-agent-image bootflash:</pre>	
Related Commands	Command	Description
	nsc-policy-agent	Enables the NSC policy agent configuration mode.

pop

To pop a mode off the stack or to restore a mode, use the **pop** command.

pop *file-name*

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

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

Command Modes	EXEC
---------------	------

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples	This example shows how to restore from a file called file1:
----------	---

```
vsm# pop file1
```

Related Commands	Command	Description
	push	Pushes the current mode onto the stack.

port-profile

To create a port profile and enter port profile configuration mode, use the **port-profile** command. To remove the port profile configuration, use the **no** form of this command.

port-profile *profile-name*

no port-profile *profile-name*

Syntax Description	<i>profile-name</i>	Port profile name. The number of characters is from 1 to 80.
Defaults	None	
Command Modes	Global configuration (config)	
SupportedUserRoles	network-admin	
Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.
Usage Guidelines	The port profile name must be unique for each port profile.	
Examples	<p>This example shows how to create a port profile called AccessProf:</p> <pre>vsm# configure vsm(config)# port-profile AccessProf</pre> <p>This example shows how to remove the port profile called AccessProf:</p> <pre>vsm# configure vsm(config)# no port-profile AccessProf</pre>	
Related Commands	Command	Description
	show port-profile	Displays information about the port profiles.

push

To push the current mode onto stack or to save it, use the **push** command.

push *file-name*

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

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

Command Modes	EXEC
---------------	------

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples	This example shows how to push file1 onto the stack:
----------	--

```
vsm# push file1
```

Related Commands	Command	Description
	pop	Pops the current mode off the stack.

registration-ip

To set the service registry IP address, use the **registration-ip** command. To discard the service registry IP address, use the **no** form of this command.

registration-ip *ip-address*

no registration-ip

Syntax Description	<i>ip-address</i>	Service registry IP address. The format is A.B.C.D.
--------------------	-------------------	---

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

Command Modes	Cisco Prime NSC policy agent configuration mode (config-nsc-policy-agent)
---------------	---

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples This example shows how to set the service registry IP address:

```
vsm# configure
vsm(config)# nsc-policy-agent
vsm(config-nsc-policy-agent)# registration-ip 209.165.200.23
```

Related Commands	Command	Description
	nsc-policy-agent	Enters the Cisco Prime NSC policy agent configuration mode.

shared-secret

To set the shared secret password for communication between the Cisco VSG, the Virtual Supervisor Module (VSM), and the Cisco Prime Network Services Controller (Prime NSC), use the **shared-secret** command. To discard the shared secret password, use the **no** form of this command.

shared-secret *shared-secret-password*

no shared-secret

Syntax Description	<i>shared-secret-password</i> Shared secret password. The number of characters is from 1 to 64. You must use at least one uppercase character.
---------------------------	--

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

Command Modes	Cisco Prime NSC policy agent configuration mode (config-nsc-policy-agent)
----------------------	---

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples This example shows how to set the shared secret password:

```
vsm# configure
vsm(config)# nsc-policy-agent
vsm(config-nsc-policy-agent)# shared-secret Password123
```

Related Commands	Command	Description
	nsc-policy-agent	Enters NSC policy agent configuration mode.

show org port brief

Displays the ports attached to the port profile where org is configured, use the **show org port brief** command.

show org port brief [**port-profile** *pp_name* | **vethernet** *veth_num*] [**module** *module_num*]

Syntax Description

port-profile	(Optional) Displays the port information for the specified port-profile name.
<i>pp_name</i>	Port-profile name.
vethernet	(Optional) Displays the port information for the specified virtual Ethernet number.
<i>vethernet_num</i>	Specifies the virtual Ethernet number.
module	(Optional) Displays the module number.
<i>module_num</i>	Displays the module number to see the virtual Ethernet connections on the module.

Command Modes

EXEC

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show org port brief** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- module—Filters the output per a specific module number.
- |—Pipes the command output to a filter.

Examples

This example shows how to display the port profile information:

```
nexus-812# show org port brief
Veth Mod VM-Name vNIC IP-Address
1 3 lin1 80.1.0.11,
5 3 lin2 80.1.0.22,
6 3 vm-11 80.1.0.52,
7 3 vm-12 80.1.0.53
```

show running-config

To display the running configuration, use the **show running-config** command.

```
show running-config [aaa | diff | ip | port-profile | vlan | acllog | eem | ipqos | port-security | vrf
| aclmgr | exclude | ipv6 | radius | vservice | adjmgr | exclude-provision | l3vm | rpm | vshd
| all | expand-port-profile | license | security | arp | icmpv6 | monitor | cdp | igmp | network
| spanning-tree | cert-enroll | interface | ntp | vdc-all]
```

Syntax Description

aaa	(Optional) Displays the Authentication, Authorization and Accounting (AAA) configuration.
aclmgr	(Optional) Displays the running configuration for Access Control List (ACL) manager.
adjmgr	(Optional) Displays adjacency manager information.
all	(Optional) Displays the current operating configurations.
arp	(Optional) Displays Address Resolution Protocol (ARP) information.
cdp	(Optional) Displays the Cisco Discovery Protocol (CDP) configuration.
cert-enroll	(Optional) Displays certificate enrollment information.
diff	(Optional) Displays the difference between the running and startup configurations.
eem	
exclude	(Optional) Displays the running configuration of the excluded features.
exclude-provision	(Optional) Excludes the provision information.
expand-port-profile	(Optional) Displays port profile information.
icmpv6	(Optional) Displays Internet Control Message Protocol (ICMPv6) information.
igmp	(Optional) Displays Internet Group Management Protocol (IGMP) information.
interface	(Optional) Displays interface configurations.
ip	(Optional) Displays Internet Protocol (IP) information.
ipqos	(Optional) Displays the running configuration for the IP Quality of Service (QoS) manager.
ipv6	(Optional) Displays IPv6 information.
l3vm	(Optional) Displays Layer 3 Virtual Machine (L3VM) information.
license	(Optional) Displays the licensing configuration.
monitor	(Optional) Displays Ethernet Switched Port Analyzer (SPAN) session information.
network	(Optional) Displays network information.
ntp	(Optional) Displays Network Time Protocol (NTP) information.
port-profile	(Optional) Displays port-profile configurations.
port-security	(Optional) Displays port-security configurations.
radius	(Optional) Displays the Remote Authentication Dial In User Service (RADIUS) configuration.
rpm	(Optional) Displays RPM information.

security	(Optional) Displays the security configurations.
spanning-tree	(Optional) Displays spanning-tree protocol information.
vdc-all	(Optional) Displays all virtual device context (VDC) configurations.
vlan	(Optional) Displays virtual large area network (VLAN) information.
vrf	(Optional) Displays Virtual Routing and Forwarding (VRF) information.
vshd	(Optional) Displays the running configuration for virtual shared hardware device (VSHD).
aclog	Displays aclog information.
vservice	Displays virtual service node.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show running-config** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the running configuration:

```
vsm-hpv# show running-config

!Command: show running-config
!Time: Sun May 5 20:04:22 2013

version 5.2(1)SM1(5.1)
svs switch edition essential

hostname VSM-hpv

no feature telnet
feature network-segmentation-manager

username admin password 5 $1$KxvwqWcb$8PqeCVrfY6QDy9nau.hBf. role network-admin

banner motd #Nexus 1000V Switch
```

show running-config

```

#

ip domain-lookup
errdisable recovery cause failed-port-state
svs license volatile
vem 3
  host id 0F5A5036-A5BF-1244-896D-760C4E3AC29C
vem 4
  host id 1022F40A-D033-FB44-B228-6B48FBD14928
snmp-server user admin network-admin auth md5 0xda2d510adcc26f463fc5c476a19be55b priv
0xda2d510adcc26f463fc5c476a19be55b localizedkey
rmon event 1 log trap public description FATAL(1) owner PMON@FATAL
rmon event 2 log trap public description CRITICAL(2) owner PMON@CRITICAL
rmon event 3 log trap public description ERROR(3) owner PMON@ERROR
rmon event 4 log trap public description WARNING(4) owner PMON@WARNING
rmon event 5 log trap public description INFORMATION(5) owner PMON@INFO

vrf context management
  ip route 0.0.0.0/0 10.2.0.1
vlan 1,550-555,914

port-channel load-balance ethernet source-mac
port-profile default max-ports 32
port-profile default port-binding static
port-profile type vethernet NSM_template_vlan
  no shutdown
  guid 86ceec5b-7a9c-4df4-9218-333bfc6f40a5
  description NSM default port-profile for VLAN networks. Do not delete.
  state enabled
port-profile type vethernet NSM_template_segmentation
  no shutdown
  guid 4a6cf01d-80df-48b2-87d8-0b0a15e7d450
  description NSM default port-profile for VXLAN networks. Do not delete.
  state enabled
port-profile type ethernet Uplink
  no shutdown
  guid 2122b8d9-8d21-4fb3-9e75-971fbb1a266d
  max-ports 512
  state enabled
port-profile type ethernet uplink_network_default_policy
  no shutdown
  guid bf7bd8ce-9a90-4af2-98c9-d7f8bafa9cb2
  max-ports 512
  description NSM created profile. Do not delete.
  state enabled
port-profile type vethernet N1K
  no shutdown
  guid 70cff39e-9136-434c-8f36-f17e82210031
  state enabled
  publish port-profile
port-profile type vethernet service
  no shutdown
  guid 6b9b60fd-4aff-40da-896c-7df7bc252908
  state enabled
  publish port-profile
port-profile type vethernet ha
  no shutdown
  guid 7f598f09-68d6-47a3-97e0-158ce8558292
  state enabled
  publish port-profile
port-profile type vethernet vnadp
  capability 13-vservice
  no shutdown
  guid d41c34d0-7c93-4fec-92ef-1f4383276b28

```

```

state enabled
publish port-profile
port-profile type vethernet veth-1
org root/Tenant-1
vservice node VSG-138 profile SP11
no shutdown
guid 14fa09d3-6cf8-4c55-b7f5-ad0ae4e4c8bd
state enabled
publish port-profile
port-profile type vethernet veth-2
org root/Tenant-1/VDC-1/App-1/Tier-1
vservice node VSG-138 profile SP14
no shutdown
guid 4be00543-2965-4d4e-be39-2f0ed5c606e6
state enabled
publish port-profile
port-profile type vethernet veth-3
org root/Tenant-1/VDC-1/App-1/Tier-1
vservice node VSG-N1010 profile SP11
no shutdown
guid 335f49a3-95e8-4c88-b078-7a5424f4537b
state enabled

```

Related Commands

Command	Description
show aaa	Displays AAA information.

show running-config vservice node

To display the configuration details of the service nodes in the network, use the **show running-config vservice node** command.

```
show running-config vservice node [node-name]
```

Syntax Description

<i>node-name</i>	(Optional) Name of the vservice node.
------------------	---------------------------------------

Command Default

None

Command Modes

EXEC

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show running-config vservice node** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- node-name—Displays the configuration of the specified vservice node name.
- |—Pipes the command output to a filter.

Examples

This example shows how to display information about a configured vservice node:

```
vsm# show running-config vservice node

!Command: show running-config vservice node
!Time: Wed May 8 06:54:03 2013
version 5.2(1)SM1(5.1)
logging level vns_agent 2
vservice node VSG13 type vsg
ip address 192.168.180.33
adjacency 13
fail-mode close
vservice node VSGhv-13 type vsg
ip address 192.168.180.31
adjacency 13
fail-mode close
```

Related Commands	Command	Description
	vservice node	Configures a service node.

show nsc-pa status

To display the installation status of a policy agent, use the **show nsc-pa status** command.

show nsc-pa status

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Global configuration (config)
EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show nsc-pa status** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the installation status of the policy agent:

```
vsm# configure
vsm(config)# show nsc-pa status
NSC Policy-Agent status is - Installed Successfully. Version 3.2(1c)-vsm
vsm(config)#
```

Related Commands	Command	Description
	nsc-policy-agent	Enters the Cisco Prime NSC policy agent configuration mode.

show vservice brief

To display only a brief summary about the Cisco VSG, use the **show vservice brief** command.

```
show vservice brief {[node-name <node name>] | { [node-l3] [node-ipaddr <ip-addr>]} | [
module <module-num>]}
```

Syntax Description

node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip-addr</i>	Specifies the IP address of the service node.
module	(Optional) Displays module number.
<i>module-num</i>	Specifies the module number to see all the VSN connections on the module.
node-name	(Optional) Displays service node name.
<i>node-name</i>	Specifies the service node.

Command Default

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show vservice brief** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display a summary of the Cisco VSGs:

```
VSM# show vservice brief
```

```
-----  
Node Information  
-----
```

show vservice brief

ID	Name	Type	IP-Address	Mode	State	Module
1	NODE-1	vsg	20.1.0.142	13	Alive	3,4,

Path Information

Port Information

PortProfile:PP-VNS-1

Org:root/Tenant/VDC/App/Tire

Node:NODE-1(20.1.0.142)

Profile(Id):SP1(8)

Veth Mod VM-Name

vNIC IP-Address

3 4 ub-vm-60

30.1.0.60,

6 3 ub-vm-20

30.1.0.20,

VSM#

show vservice connection

To display Cisco VSG connections, use the **show vservice connection** command.

```
show vservice connection [port-profile <pp_name> | service-profile <sp_name> | node-name
<node_name> | {[node-l3] [node-ipaddr <ip_addr>}}] [module <module_num>]
```

Syntax	Description
port-profile	Port information for the specified port-profile name.
<i>port-profile</i>	Specifies the port-profile name.
service-profile	Port information for the specified service-profile name.
<i>service_profile</i>	Specifies the service-profile name.
node-name	(Optional) Displays service node name.
<i>node-name</i>	Specifies the service node.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip-addr</i>	Specifies the IP address of the service node.
module	(Optional) Displays module number.
<i>module-num</i>	Specifies the module number.

Command Default None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vservice connection** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display Cisco VSG connections:

■ show vservice connection

```
vsm-hpv# show vservice connection
Actions(Act):
d - drop s - reset
p - permit t - passthrough
r - redirect e - error
_ - not processed yet upper case - offloaded
Flags:
A - seen ack for syn/fin from src a - seen ack for syn/fin from dst
E - tcp conn established (SasA done)
F - seen fin from src f - seen fin from dst
R - seen rst from src r - seen rst from dst
S - seen syn from src s - seen syn from dst
T - tcp conn torn down (FafA done) x - IP-fragment connection

#Port-Profile:PP-VM-VNS1 Node:VSG-Node1
#Module 3
Proto SrcIP[:Port] SAct DstIP[:Port] DAct Flags Bytes
icmp 80.1.0.52 P 80.1.0.53 592
```

show vservice detail

To display detailed information about the Cisco VSG, use the **show vservice detail** command.

```
show vservice detail {[node-name <node name>] | { [node-l3] [node-ipaddr <ip-addr>]} | [
  module <module-num>]}
```

Syntax Description

node-name	(Optional) Displays service node name.
<i>node-name</i>	Specifies the service node.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip-addr</i>	Specifies the IP address of the service node.
module	(Optional) Displays module number.
<i>module-num</i>	Specifies the module number to see all the VSN connections on the module.

Command Default

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show vservice detail** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display detailed information about Cisco VSGs:

```
VSM# show vservice detail
```

```
-----  
Node Information  
-----
```

■ show vservice detail

```

Node ID:1      Name:NODE-1
Type:vsg      IPAddr:20.1.0.142      Fail:close L3
Mod  State    MAC-Addr      VVer
  3  Alive     --            2
  4  Alive     --            2
-----
Path Information
-----
Port Information
-----
PortProfile:PP-VNS-1
Org:root/Tenant/VDC/App/Tire
Node:NODE-1 (20.1.0.142)      Profile(Id):SP1 (8)
Veth3
  Module :4
  VM-Name :ub-vm-60
  vNIC:Network Adapter
  DV-Port :a063af28-c377-42a4-8396-89d9f28aa576--46a1bc75-6af5-48c9-bad2-773028e24fc5
  VM-UUID :A063AF28-C377-42A4-8396-89D9F28AA576
  DVS-UUID:02b1b0b0-a022-414f-b5f9-b82dadaca1f0
  IP-Addrs:30.1.0.60,
Veth6
  Module :3
  VM-Name :ub-vm-20
  vNIC:Network Adapter
  DV-Port :2834329d-eb5d-477b-8e86-5fb9fd40b000--aa5c3125-b4d9-4520-8e48-c355102ee015
  VM-UUID :2834329D-EB5D-477B-8E86-5FB9FD40B000
  DVS-UUID:02b1b0b0-a022-414f-b5f9-b82dadaca1f0
  IP-Addrs:30.1.0.20,

VSM#
-----

```

Related Commands

Command	Description
show vservice port	Displays information about virtual Ethernet (vEth) ports.

show vservice node mac brief

To display a brief summary about the MAC address of the Cisco VSG service node, use the **show vservice node mac brief** command.

show vservice node mac brief

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vservice node mac brief** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the MAC address of the Cisco VSG service node

```
VSM-hpv# show vservice node mac brief
```

```
-----
                                Node Information
-----
ID  Type  IP-Address  MAC-Addr  Mode  Fail State  Module
 3  vsg   10.1.0.150  00:00:00:00:00:00  13   close Alive   4,
```

show vservice node brief

To display a brief summary about the Cisco VSG vservice node, use the **show vservice node brief** command.

```
show vservice node brief {[name <name>] | {[I3] [ipaddr <ip_addr>]} } [module
  <module_num>]}
```

Syntax	Description
name	(Optional) Displays service node name.
<i>name</i>	Service node.
I3	(Optional) Displays the port information for the Layer 3 adjacency.
ipaddr	(Optional) Displays the port information for the specified IP address of the node.
<i>ip_addr</i>	Node's IP address.
module	(Optional) Displays module keyword.
<i>module-num</i>	Module number to see all the VSN connections on the module.

Command Default None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vservice node brief** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display a brief summary about the Cisco VSG vservice node.

```
VSM-hpv# show vservice node brief
```

```
-----  
Node Information
```

```
-----  
ID Name           Type   IP-Address   Mode   State   Module  
 3 VSG-Root       vsg    10.1.0.150   13     Alive   4,
```

show vservice node detail

To display details about the Cisco VSG vservice node, use the **show vservice node detail** command.

```
show vservice node detail {[name <name>] | {[I3] [ipaddr <ip_addr>]} } [module
  <module_num>]}
```

Syntax	Description
name	(Optional) Displays the service node name.
<i>name</i>	Service node.
I3	(Optional) Displays the port information for the Layer 3 adjacency.
ipaddr	Displays the port information for the specified IP address of the node.
<i>ip_addr</i>	Node's IP address.
module	(Optional) Displays module keyword.
<i>module-num</i>	Module number to see all the VSN connections on the module.

Command Default None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vservice node detail** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the Cisco VSG service node:

```
VSM-hpv# show vservice node detail
```

```
-----
Node Information
-----
```



```
Node ID:3      Name:VSG-Root
Type:vsg      IPAddr:10.1.0.150      Fail:close L3
Mod  State    MAC-Addr              VVer
  4  Alive    --                    2
```

show vservice port brief

To display a brief summary about the configured ports in the network, use the **show vservice port brief** command.

```
show vservice port brief [port-profile <pp_name> | vethernet <veth_if> | service-profile
    <sp_name> | node-name <node_name> | {[node-l3] [node-ipaddr <ip_addr>}}] [module
    <module_num>}]
```

Syntax Description

port-profile	Displays the port information for the specified port-profile name.
<i>pp_name</i>	Port-profile name.
vethernet	Displays the virtual ethernet interface for the specified port-profile name.
<i>veth_if</i>	Virtual ethernet interface.
service-profile	Displays the port information for the specified service-profile name.
<i>service_profile</i>	Service-profile name.
node-name	(Optional) Displays service node name.
<i>node-name</i>	Service node.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip_addr</i>	Node's IP address.
module	(Optional) Displays module keyword.
<i>module-num</i>	Module number to see all the VSN connections on the module.

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show vservice port brief** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- module—Filter the output per a specific module number.
- |—Pipes the command output to a filter.

Examples

This example shows how to display a brief summary about the vservice ports for module number 4:

```
vsm# show vservice port brief module 4
```

```
-----
                                Port Information
-----
PortProfile:
Org:root/Tenant-1/VDC-1/App-1/Tier-1
Node:VSG-Root(10.1.0.150)           Profile(Id):SP100(16)
Veth Mod VM-Name                   vNIC
   5   4 vm-win-16
```

Related Commands

Command	Description
vservice port detail	Displays details of the configured ports in the network.

show vservice port detail

To display details about the configured ports in the network, use the **show vservice port detail** command.

```
show vservice port detail [port-profile <pp_name> | vethernet <veth_if> | service-profile
    <sp_name> | node-name <node_name> | {[node-l3] [node-ipaddr <ip_addr>]}] [module
    <module_num>]}
```

Syntax Description

port-profile	Displays the port information for the specified port-profile name.
<i>pp_name</i>	Port-profile name.
vethernet	Displays the virtual ethernet interface for the specified port-profile name.
<i>veth_if</i>	Virtual ethernet interface.
service-profile	Displays the port information for the specified service-profile name.
<i>service_profile</i>	Service-profile name.
node-name	(Optional) Displays service node name.
<i>node-name</i>	Service node.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip_addr</i>	Node's IP address.
module	(Optional) Displays module keyword.
<i>module-num</i>	Module number to see all the VSN connections on the module.

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show vservice port detail** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- module—Filter the output per a specific module number.
- |—Pipes the command output to a filter.

Examples

This example shows how to display details about of the vservice for module 4:

```
vsm# show vservice port detail module 4
-----
Port Information
-----
PortProfile:
Org:root/Tenant-1/VDC-1/App-1/Tier-1
Node:VSG-Root(10.1.0.150)           Profile(Id):SP100(16)
Veth5
Module :4
VM-Name :vm-win-16
vNIC:Network Adapter
DV-Port :884f1580-0ad6-4958-a74a-c27b3febbe28--8884a888-09e1-4503-8074-de32e3e2a
f85
VM-UUID :884F1580-0AD6-4958-A74A-C27B3FEBBE28
DVS-UUID:633a90b8-98bd-4264-b3b6-7a0d77b73ba1
```

Related Commands

Command	Description
show vservice port brief	Displays a brief summary about the configured ports in the network.

show vservice statistics

To display the information about the configuration, MAC address, state of associated Cisco VSG and Virtual Ethernet Module (VEM), virtual Ethernet interfaces to which Cisco VSGs are bound, and Virtual Service Node (VSN) statistics for all VEM modules associated with Cisco VSGs, use the **show vservice statistics** command.

show vservice statistics [**ip** *ip-addr* | **module** *module-num*]

Syntax	Description
ip	(Optional) Displays IP address statistics.
<i>ip-addr</i>	IP address.
module	(Optional) Displays VEM module statistics.
<i>module-num</i>	Module number.

Command Default None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vservice statistics** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display statistics for a module:

```
VSM-hpv# show vservice statistics module 4
#VSN VLAN: 0, IP-ADDR: 10.1.0.150
Module: 4
#VPath Packet Statistics      Ingress      Egress      Total
Total Seen                   2             2            4
Policy Redirects              2             2            4
No-Policy Passthru            0             0            0
Policy-Permits Rcvd           1             2            3
Policy-Denies Rcvd            0             0            0
```

```

Permit Hits                0                0                0
Deny Hits                  0                0                0
Decapsulated                1                2                3
Fail-Open                   0                0                0
Badport Err                 0                0                0
VSN Config Err              0                0                0
VSN State Down              228              1288             1516
Encap Err                   0                0                0
Version Mismatch            0                0                0
V1 In svcPath               0                0                0
All-Drops                   228              1288             1516
Flow Notificns Sent         0                0                0
Total Rcvd From VSN        0                0                5
Non-Cisco Encap Rcvd       0                0                0
VNS-Port Drops              0                0                2
Policy-Action Err           0                0                0
Decap Err                   0                0                0
L2-Frag Sent                0                0                0
L2-Frag Rcvd                0                0                0
L2-Frag Coalesced           0                0                0
Encap exceeded MTU          0                0                0
ICMP Too Big Rcvd          0                0                0

#VPath Flow Statistics
Active Flows                 0 Active Connections 0
Forward Flow Create          1 Forward Flow Destroy 1
Reverse Flow Create          1 Reverse Flow Destroy 2
Flow ID Alloc                 3 Flow ID Free          3
Connection ID Alloc          1 Connection ID Free    1
L2 Flow Create                1 L2 Flow Destroy        1
L3 Flow Create                0 L3 Flow Destroy        0
L4 TCP Flow Create            0 L4 TCP Flow Destroy    0
L4 UDP Flow Create            2 L4 UDP Flow Destroy    2
L4 Oth Flow Create            0 L4 Oth Flow Destroy    0
Embryonic Flow Create        0 Embryonic Flow Bloom  0
L2 Flow Timeout              2 L2 Flow Offload        3
L3 Flow Timeout              0 L3 Flow Offload        0
L4 TCP Flow Timeout           0 L4 TCP Flow Offload    0
L4 UDP Flow Timeout           5 L4 UDP Flow Offload    0
L4 Oth Flow Timeout           0 L4 Oth Flow Offload    0
Flow Lookup Hit              5 Flow Lookup Miss       3
Flow Dual Lookup             8 L4 TCP Tuple-reuse     0
TCP chkfail InvalACK         0 TCP chkfail SeqPstWnd  0
TCP chkfail WndVari          0
Flow Classify Err            0 Flow ID Alloc Err      0
Conn ID Alloc Err            0 Hash Alloc Err         0
Flow Exist                   0 Flow Entry Exhaust     0
Flow Removal Err             0 Flow Entry Miss        0
Flow Full Match Err          0 Bad Action Receive     0
Invalid Flow Pair            3 Invalid Connection     0
Hash Alloc                   0 Hash Free              0
InvalFID Lookup Err          0 Deferred Delete       0

```

Related Commands

Command	Description
show vservice port	Displays information about virtual Ethernet (vEth) ports.

state (port profile)

To enable the operational state of a port profile, use the **state** command. To disable the operational state of a port profile, use the **no** form this command.

state enabled

no state enabled

Syntax Description	enabled	Enables the port profile.
--------------------	---------	---------------------------

Defaults	Disabled
----------	----------

Command Modes	Port profile configuration (config-port-prof)
---------------	---

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

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples This example shows how to enable the operational state of a port profile:

```
vsm# configure
vsm(config)# port-profile testprofile
vsm(config-port-prof)# state enabled
```

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

switchport mode

To set the port mode of an interface, use the **switchport mode** command. To remove the port mode configuration, use the **no** form of this command.

```
switchport mode {access | trunk}
```

```
no switchport mode {access | trunk}
```

Syntax Description

access	Sets the port mode access.
trunk	Sets the port mode to trunk.

Defaults

Switchport mode is not set.

Command Modes

Interface configuration (config-if)
Port profile configuration (config-port-prof)

Supported User Roles

network-admin

Command History

Release	Modification
4.2.1SV2(2.1)	This command was introduced.

Examples

This example shows how to set the port mode of an interface:

```
vsm# configure
vsm(config)# interface vethernet 1
vsm(config-if)# switchport mode access
```

This example shows how to remove the mode configuration:

```
vsm# configure
vsm(config)# interface vethernet 1
vsm(config-if)# no switchport mode access
```

Related Commands

Command	Description
show interface	Displays interface information.

switchport access vlan

To set the access mode of an interface, use the **switchport access vlan** command. To remove the access mode configuration, use the **no** form of this command.

switchport access vlan *vlan-id*

no switchport access vlan *vlan-id*

Syntax Description	<i>vlan-id</i>	VLAN identification number. The range is from 1 to 3967.
Defaults	Access mode is not set.	
Command Modes	Interface configuration (config-if) Port profile configuration (config-port-prof)	
Supported User Roles	network-admin	
Command History	Release	Modification
	4.2.1SV2(2.1)	This command was introduced.
Examples	<p>This example shows how to set the access mode of an interface:</p> <pre>vsm# configure vsm(config)# interface vethernet 1 vsm(config-if)# switchport access vlan 100</pre> <p>This example shows how to remove the access mode configuration:</p> <pre>vsm# configure vsm(config)# interface vethernet 1 vsm(config-if)# no switchport access vlan</pre>	
Related Commands	Command	Description
	show interface	Displays interface information.

tcp state-checks

To configure the Cisco Nexus 1000V switch to perform TCP state checks, use the **tcp state-checks** command. To return to the default setting, use the **no** form of the command.

tcp state-checks

no tcp state-checks

Syntax Description There are no arguments.

Command Modes vservice global configuration (config-vservice-global)

SupportedUserRoles network-admin
system-admin

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines Because the default TCP state checks in vPath are different for each check, the **no** form of this command may enable or disable the respective checks. See the “Defaults” section, before you enter the **no** form of this command.

Examples

This example shows how to configure the switch to perform the default TCP state checks:

```
n1000v(config)# vservice global type vsg
n1000v(config-vservice-global)# tcp state-checks
```

Related Commands

Command	Description
vservice global type vsg	Enters the vservice global configuration mode.
vsg	

vlan

To create a VLAN and enter VLAN configuration mode, use the **vlan** command. To remove a VLAN, use the **no** form of this command.

```
vlan {id | dot1Q tag native}
```

```
no vlan {id | dot1Q tag native}
```

Syntax Description	
<i>id</i>	VLAN identification number. The range is from 1 to 4094.
dot1Q tag native	Specifies an IEEE 802.1Q virtual LAN.

Defaults	
VLAN 1	

Command Modes	
Global configuration (config)	

Supported User Roles	
network-admin	

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines	
Specify a VLAN range by using a dash. For example, 1-9 or 20-30.	

Examples	
This example shows how to create a VLAN and enter VLAN configuration mode:	

```
vsm# configure
vsm(config)# vlan 100
vsm(config-vlan)#
```

This example shows how to remove a VLAN:

```
vsm# configure
vsm(config)# no vlan 100
```

Related Commands	Command	Description
	show vlan	Displays the VTP VLAN status.

vservice

To associate a port profile with a service node, use the **vservice** command from the config-port-profile mode of the port profile. To delete a port-profile configuration, use the **no** form of this command.

```
vservice { node node_name [profile profile_name]
```

```
no vservice
```

Syntax Description

node	Specifies the service node to associate the port profile with.
<i>node_name</i>	Predefined service node name.
profile	(Optional) Specifies the service profile that the service node is to be associated with.
<i>profile_name</i>	Predefined service profile name.

Defaults

None

Command Modes

Port-profile configuration (config-port-prof)

Supported User Roles

network-admin

Command History

Release	Modification
5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines

You can associate the service node to the chosen port-profile entity. The node need to be predefined. If the node is of type VSG specifying a profile is mandatory.

Examples

This example shows how to configure a port profile with a node and service profile:

```
vsm(config)# port-profile port1 <----- Enter the mode of the port-profile entity you
want to configure
vsm(config-port-prof)# vservice node vsg1 profile sp1
```

Related Commands

Command	Description
show port-profile	Displays information about the port profiles.

vservice global type vsg

To enter vservice global configuration mode, use the **vservice global type vsg** command.

vservice global type vsg

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes vservice global configuration (config-vservice-global)

SupportedUserRoles network-admin

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples This example shows how to enter vservice global configuration mode:

```
n1000v# configure <----- enter the config mode
n1000v(config)# vservice global type vsg
n1000v(config-vservice-global)#
```

Related Commands	Command	Description
	tcp state-checks	Configures selective TCP state checks on the switch traffic.

vservice node

To configure a service node, use the **vservice node** command. To disable a service node, use the **no** form of this command.

```
vservice node node_name type { vsg }
      ip address ip-address | no ip address
      adjacency { l3 } | no adjacency failmode { close | open } | no failmode
```

```
no vservice node node_name
      no ip address
      no adjacency
      no failmode
```

Syntax Description		
	<i>node_name</i>	Service node name to identify it in the network.
	type	Specifies the type of service node to be configured.
	vsg	Specifies the Cisco VSG service node.
	ip address	Specifies the IP address of the service node. This IP address should match the IP address of the data interface node.
	<i>ip-address</i>	IP address of the associated service node.
	no	Specifies that there is no IP address associated with the service node.
	adjacency	Specifies the adjacency for Layer 3 mode.
	l3	Specifies Layer 3 (using IP address) mode for the service node.
	failmode	Sets the state to be in either fail close or fail open mode.
	close	Drops packets if the Cisco VSG is down. This is the default value.
	open	Allows the packets to pass through if the Cisco VSG is down.

Command Default None

Command Modes Global configuration (config)

Supported User Roles Network-admin

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines Use **vservice node** command to configure a service node with an existing Cisco VSG. That node is associated with a port profile.

You can only delete inactive vservice nodes. The inactive nodes are not configured with any Virtual Machines (VMs).

Examples

This example shows how to enter vservice-node mode and configure the IP address of a vservice node, adjacency, and fail-mode settings:

```
vsm(config)# vservice node test type vsg <----- enter the vservice-node mode
vsm(config-vservice-node)# ip address 1.1.11.11
vsm(config-vservice-node)# adjacency 13
vsm(config-vservice-node)# fail-mode close
```

Related Commands

Command	Description
show vservice node brief	Displays brief information about the vservice node.
show vservice node detail	Displays detailed information about the vservice node.

nsc-policy-agent

To enter Cisco Prime Network Services Controller (Prime NSC) policy agent mode, use the **nsc-policy-agent** command.

nsc-policy-agent

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Usage Guidelines Use Cisco Prime NSC policy agent configuration mode to configure policy agents.

Examples This example shows how to enter Cisco Prime NSC policy agent mode:

```
vsm# configure
vsm(config)# nsc-policy-agent
vsm(config-nsc-policy-agent)#
```

Related Commands	Command	Description
	configure	Enters global configuration mode.



Cisco Virtual Security Gateway Commands

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

action

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

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

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

Command Default	
	None

Command Modes	
	rule configuration (config-rule)

Supported User Roles	
	network-admin

Command History	Release	Modification
	5.2.1VSG1(4.1)	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:

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

Related Commands	Command	Description
	rule	Enters the rule configuration submode.

attach

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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
Copyright (c) 2002-2013, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
```

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

attribute

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

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

Syntax Description

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

Command Default

None

Command Modes

Test policy-engine (test-policy-engine)

Supported User Roles

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 2 src.net.ip-address value 10.10.10.1
vsg(test-policy-engine)# exit
```

Result: DROP, Policy: p1, Rule: r1

Related Commands

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

banner motd

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

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

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

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

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

Command Modes Global configuration (config)

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)

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 configure a boot variable:

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

Related Commands

Command	Description
show boot	Displays the current boot variables.

cd

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

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

Syntax Description

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

Defaults

bootflash:

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
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 | format device-id | holdtime seconds | timer seconds}
```

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

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

Defaults None

Command Modes Global configuration (config)

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)	
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 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: <pre>vsg# clear bootvar log</pre>
----------	--

clear cdp

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
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 all	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)
----------------------	---------------------------------------

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 CLI command history: <pre>vsg# clear cli history</pre>
-----------------	---

Related Commands	Command	Description
	show cli history	Displays the CLI command history.

clear cores

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

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

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

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

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 debug logfile

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

clear debug logfile *log-name*

Syntax Description	<i>log-name</i>	Name of the debug log.
--------------------	-----------------	------------------------

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: <pre>vsg# clear debug logfile syslog_debug</pre>
----------	--

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)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to clear the FS daemon log:</p> <pre>vsg# clear fs-daemon log</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show logging</td> <td>Displays the logging configuration and the contents of the log file.</td> </tr> </tbody> </table>	Command	Description	show logging	Displays the logging configuration and the contents of the log file.
Command	Description				
show logging	Displays the logging configuration and the contents of the log file.				

clear inspect

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

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**

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

clear install

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

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

Syntax Description		
	all failed-standby	Clears all the installation logs.
	failure-reason	Clears the installation failure reason log.
	status	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: <pre>vsg# clear install all failed-standby</pre>

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

clear ip adjacency statistics

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

clear ip adjacency statistics

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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		
<i>ip-address</i>		IP address. The format is A.B.C.D.
vrf		(Optional) Clears all virtual routing and forwarding (VRF) ARP IP address statistics.
<i>vrf-name</i>		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 mgmt

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

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

Syntax Description	0	Clears management 0 interface ARP IP address statistics.
	vrf	(Optional) Clears virtual routing and forwarding (VRF) ARP IP address statistics.
	<i>vrf-name</i>	VRF name. The range 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 0 vrf all
```

Related Commands	Command	Description
	show ip arp	Displays IP ARP 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 { mgmt | vrf }
```

Syntax Description	mgmt	Clears the management 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 mgmt 0:
vsg# `clear ip arp statistics mgmt 0`

Related Commands	Command	Description
	show ip	Displays IP information.

clear ip arp vrf

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

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

Syntax Description		
	<i>vrf-name</i>	VRF name. The range 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)

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 ARP VRF IP address statistics:

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

Related Commands	Command	Description
	show vrf	Displays VRF information.

clear ip interface

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

```
clear ip interface statistics [mgmt 0 ]
```

Syntax Description	mgmt 0 (Optional) Clears IP address statistics on the management 0 interface.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to clear IP address statistics on an Ethernet interface:</p> <pre>vsg# clear ip interface statistics</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show ip interface</td> <td>Displays IP interface information.</td> </tr> </tbody> </table>	Command	Description	show ip interface	Displays IP interface information.
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}] | A.B.C.D/LEN [A.B.C.D {data 0}] | 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.
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.
<i>vrf-name</i>		Virtual routing and forwarding (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

Syntax Description None.

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 global IP statistics:
vsg# **clear ip traffic**

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

clear ipv6 adjacency statistics

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

clear ipv6 adjacency statistics

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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

Syntax Description

None

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 ICMP IPv6 Ethernet interface statistics:

```
vsg# clear ipv6 icmp interface statistics
```

Related Commands

Command

Description

show ipv6 icmp

Displays ICMPv6 information.

clear ipv6 icmp mld groups

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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 *
```

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 nd interface statistics

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

clear ipv6 nd interface statistics

Syntax Description	None
---------------------------	------

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: <pre>vsg# clear ipv6 nd interface statistics</pre>
-----------------	---

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

clear line

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

clear line *vtty-name*

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

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 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: <pre>vsg# clear logging logfile</pre>

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)

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 NVRAM:

```
vsg# clear nvram
```

Related Commands	Command	Description
	show system resources	Displays system resources.

clear pktmgr client

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

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

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

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

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

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 a packet manager client counter: vsg# clear pktmgr client 100
-----------------	---

Related Commands	Command	Description
	clear routing	Clears routing information.

clear pktmgr interface

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

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

clear policy-engine

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

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

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

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

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

Examples	
	This example shows how to clear policy engine statistics: <pre>vsg# clear policy-engine stats</pre>

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

clear processes

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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)

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 RMON alarms:
vsg# **clear rmon alarms**

Related Commands	Command	Description
	show rmon	Displays RMON information.

clear role

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

clear role session

Syntax Description	session	Clears the role session information.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
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 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 }]
```

Syntax Description		
	<i>ip-address</i>	IP address. The format is A.B.C.D.
	data 0	Clears routing on the data 0 interface.

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 routes on the data 0 interface: <pre>vsg# clear routing 209.165.200.228 data 0</pre>
----------	--

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}]
```

Syntax Description	<i>ip-address</i>	IP address. The format is A.B.C.D.
	data 0	(Optional) Clears routing on the data 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 routes on the data 0 interface:

```
vsg# clear routing 209.165.200.228/16
```

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 | ha | 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.
ha	Clears the high availability routes event history.
loop-detection	Clears the loop-detection routes event history.
modify-route	Clears the modified routes event history.
notifications	Clears the notification routes event history.
recursive-next-hop	Clears the recursive-next-hop routing event history.
summary	Clears the summary routing event history.
udfm	Clears the UDFM routing event history.
udfm-summary	Clears the UDFM summary routing event history.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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)

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 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**]

Syntax Description	data 0	(Optional) Clears the data 0 interface.
--------------------	--------	---

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 routes: vsg# clear routing ip 70.1.0.75
----------	--

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 }]
```

Syntax Description	<i>ip-address</i>	IP address. The format is A.B.C.D.
	data 0	Clears the data 0 interface.

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 routes: <pre>vsg# clear routing ip 209.165.200.228</pre>
----------	--

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 | ha |
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.
ha	Clears the HA routes event history.
loop-detection	Clears the loop-detection routes event history.
modify-route	Clears the modified routes event history.
notifications	Clears the notification routes event history.
recursive-next-hop	Clears the recursive-next-hop routing event history.
summary	Clears the summary routing event history.
udfm	Clears the UDFM routing event history.
udfm-summary	Clears the UDFM summary routing event history.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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 }
```

Syntax Description		
	*	Clears all IP unicast routes.
	A.B.C.D	Clears a specific IP unicast route.
	A.B.C.D/LEN	Clears a specific IP unicast route.
	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 }
```

Syntax Description		
	*	Clears all IPv4 routes.
	A.B.C.D	Clears a specific IPv4 route.
	A.B.C.D/LEN	Clears a specific IPv4 route.
	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)

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 routes:
	vsg# clear routing ipv6 *

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

clear routing vrf

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

clear routing vrf *vrf-name*

Syntax Description	<i>vrf-name</i>	VRF name. The number of characters is from 1 to 32.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	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)

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 VRF management routes:

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

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

clear routing vrf management

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

```
clear routing vrf management [* | A.B.C.D | A.B.C.D/LEN | ip | ipv4 | ipv6 | unicast ]
```

Syntax Description		
	*	Clears all routes.
	A.B.C.D	Clears single host route.
	A.B.C.D	Clears single exact match route.
	ip	Clears all the IP commands.
	ipv4	Clears all the IPv4 specific commands.
	ipv6	Clears all the IPv6 specific commands.
	unicast	Clears unicast 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 a specific set of Ethernet routes:
vsg# **clear routing vrf management 209.165.200.226**

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 }]}
```

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.

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 IP unicast routes:
vsg# **clear routing vrf management ip 70.1.0.75**

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 ipv4** command.

```
clear routing vrf management ipv4 { * | A.B.C.D [A.B.C.D {data 0} ] | A.B.C.D/LEN [A.B.C.D {data 0} ] }
```

Syntax Description		
	*	Clears all IPv4 routes.
	A.B.C.D	Clears a specific VRF management IPv4 route.
	data 0	Clears VRF management IPv4 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 { * | unicast [A.B.C.D] | A.B.C.D [A.B.C.D {data 0} |
A.B.C.D/LEN [A.B.C.D {data 0} ] }
```

Syntax Description		
*		Clears all IPv6 routes.
unicast		Clear unicast information
A.B.C.D		Clears a specific IPv6 route.
data 0		Clears VRF management IPv6 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}] | A.B.C.D/LEN
[A.B.C.D {data 0}] }
```

Syntax Description	*	Clears all unicast routes.
	A.B.C.D	Clears a specific VRF management unicast route.
	data 0	Clears VRF management 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.

clear routing vrf management unicast**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
<code>show routing</code>	Displays the IP route table.

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]}
```

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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 snmp

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

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 SNMP counters:

```
vsg# clear snmp counters
```

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

clear sockets

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

```
clear sockets {statistics | internal}
```

Syntax Description	statistics	Clears socket statistics.
	internal	Clears the internal sockets.

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 socket statistics:
vsg# **clear sockets statistics all**

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

clear ssh

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

clear ssh hosts

Syntax Description	hosts Clears the SSH host session.
---------------------------	---

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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 service-path instance 1 fe sp
```

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 fe inspection-ftp**

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

clear user

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

```
clear user user-id
```

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

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

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

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*

no cli var name *variable-name*

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

Defaults None

Command Modes EXEC

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).cfg
```

This example shows how to remove a CLI variable:

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

Related Commands

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

clock set

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

clock set *time day month year*

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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

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

Command Default

None

Command Modes

Zone configuration (config-zone)

Supported User Roles

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 zone, network, or environment attributes. When multiple condition statements are used in a rule, all conditions are considered to be AND'd during a policy evaluation.

The following operators must have at least two attribute values:

- **prefix**—When applied against an IP address (for example, **prefix** 10.10.10.1 255.255.255.0)
- **in-range**—For all types of attribute values (for example, **range** 10.10.10.1 10.10.10.200)

- **not-in-range**—For all types of attribute values (for example, **not-in-range** 10.10.10.1 10.10.10.200)

Attribute values can be any of the following:

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



Note

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

Examples

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

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

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

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

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

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

Related Commands

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

configure

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

configure

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network operator

Command History	Release	Modification
	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	<i>//file-address</i>	Address of the files to copy.
	<i>destination-address</i>	Address of the destination directory.
		Use one of the following directories in the destination address:
		<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • 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:/
```

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

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

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

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

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

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

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

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

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

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

copy ftp:

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

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

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

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

Command History	Release	Modification
	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:
	<pre>vsg# copy ftp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin bootflash:/</pre>

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

copy log:

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

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

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

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

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

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

Command History	Release	Modification
	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:/
-----------------	--

■ **copy log:**

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

■ `copy modflash:`

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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:/
```

■ copy nvram:

Related Commands

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

copy running-config

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

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

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

Defaults None

Command Modes EXEC
Global configuration

Supported User Roles network-admin

Command History	Release	Modification
	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:**

copy scp:

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

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

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

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

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

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

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

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 transfer a file from a remote SFTP directory to a local bootflash directory:
	<code>vsg# copy sftp://jjones@209.193.10.11/ps/jjones-rtg/vsg-dplug.bin bootflash:/</code>

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

copy startup-config

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles 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	
<i>//file-address</i>	Address of the files to copy.
<i>destination-address</i>	Address of the destination directory.
	You use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • 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	<p>This example shows how to copy files from a remote file directory to a local bootflash directory:</p> <pre>vsg# copy system://pkim@209.193.10.12/ps/pkim-rich/vsg-dplug.bin bootflash:/</pre>
-----------------	--

■ **copy system:**

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

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

Command History	Release	Modification
	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:
	<code>vsg# copy tftp://user@209.193.10.11/ps/user-rtg/vsg-dplug.bin bootflash:/</code>

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

copy volatile:

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

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

Syntax Description	
<i>//file-address</i>	Address of the file to copy.
<i>destination-address</i>	Address of the destination directory.
	Use one of the following directories in the destination address:
	<ul style="list-style-type: none"> • bootflash: • debug: • ftp: • log: • modflash: • nvr: • 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	<p>This example shows how to copy files from a remote volatile directory to a local bootflash directory:</p> <pre>vsg# copy volatile://user@209.193.10.10/ws/user-sjc/vsg-dplug.bin bootflash:/</pre>
-----------------	---

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

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

Defaults

Default filename: syslogd_debugs

Default file size: 10485760 bytes

Command Modes

EXEC

Global configuration (config)

Supported User Roles

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	Parameter	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	Value
	None

Command Modes	Mode
	EXEC Global configuration (config)

Supported User Roles	Role
	network-admin network-operator

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

Examples	Description
	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: <pre>vsg# dir bootflash:</pre>

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

echo

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

```
echo [backslash-interpret] [text]
```

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

Defaults Displays a blank line.

Command Modes EXEC
Global configuration (config)

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
<code>\</code>	Displays a backslash character.
<code>\nnn</code>	Displays the corresponding ASCII octal character.

Examples

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

```
vsg# echo
```

Related Commands

Command	Description
<code>run-script</code>	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

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

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

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

Related Commands	Command	Description
	configure	Enters configuration mode.

event

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

event manager clear counter *counter-name*

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

Defaults Displays a blank line.

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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

Command History	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	<i>filename-prefix</i>	First part or all of a filename. The filename prefix is case sensitive.
---------------------------	------------------------	---

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

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

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	<i>filename</i>	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_cfg.cfg
----------	---

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

gzip

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

gzip *filename*

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

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

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

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

Command History	Release	Modification
	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_cfg.cfg
-----------------	--

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

install

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

```
install all {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: <pre>vsg# install all iso bootflash://smith@209.165.200.226/test</pre>
----------	--

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 | mgmt number}
```

```
no interface {data number mgmt number}
```

Syntax Description

data	Specifies the data interface number.
<i>number</i>	Data interface number. The number is 0.
mgmt	Specifies the management interface number.
<i>number</i>	Management interface number. The number is 0.

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** *acl* | **adjacency** | **adjmgr** | **arp** | **domain-list** *name* | **domain-lookup** | **domain-name** *dname* | **extcommunity-list** | **host** *name* | **internal** | **name-server** | **route** | **routing** | **tcp** }

no ip { **access-list** *acl* | **adjacency** | **adjmgr** | **arp** | **domain-list** *name* | **domain-lookup** | **domain-name** *dname* | **extcommunity-list** | **host** *name* | **internal** | **name-server** *name* | **route** | **routing** | **tcp** }

Syntax Description

access-list	Configure the access-list.
<i>acl</i>	Name of the access-list.
adjacency	Configure adjacency manager (adjmgr).
adjmgr	Specifies the adjacency manager information.
arp	Configure ARP parameters.
domain-list	Add additional domain names.
<i>name</i>	Name of the domain-list.
domain-lookup	Configure Domain Name Service (DNS).
domain-name	Specify default domain name.
<i>dname</i>	Domain name.
extcommunity-list	Add a extcommunity list entry.
host	Add an entry to the ip hostname table.
<i>name</i>	Host name.
internal	Commands for internal use.
name-server	Specify nameserver address.
<i>name</i>	Nameserver information.
route	Configure route information.
routing	Configure routing information.
tcp	Configure global TCP parameters.

Defaults

None

Command Modes

Global configuration

Supported User Roles

network-admin
network-operator

■ ip

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 | vtty }
```

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

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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 <i>severity-level</i>		Enables logging messages to the console session. To disable, use the no logging console command. The range is from 0 to 7.
distribute		Enables fabric distribution using CFS distribution for logging. To disable, use the no logging distribute command.
event		Logs interface events. To disable, use the no logging event command.
level		Enables logging of messages from a named facility at a specified severity level. To disable, use the no logging level command.
logfile <i>name</i>		Configures the specified log file that stores system messages. To disable, use the no logging logfile command.
module <i>severity-level</i>		Starts logging of module messages to the log file. To disable, use the no logging module command. The range is from 0 to 7.
monitor <i>severity-level</i>		Enables the logging of messages to the monitor (terminal line). To disable, use the no logging monitor command. The range is from 0 to 7.
server		Designates and configures a remote server for logging system messages. To disable, use the no logging server command.
source-interface loopback <i>number</i>		Enables a source interface for the remote syslog server. To disable, use the no logging source-interface command. The range is from 0 to 1023.
timestamp <i>time-type</i>		Sets the unit of time used for the system messages timestamp, in microseconds, milliseconds, or seconds. To disable, use the no logging timestamp command.

Defaults None

Command Modes 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 discard logging a CFS distribution session in progress:

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

Related Commands

Command	Description
show logging	Displays logging information.

match

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

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

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

Command Default None

Command Modes Policy configuration (config-policy)

Supported User Roles 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

To retry synchronization with configured servers, use the **ntp sync-retry** command.

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
```

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

<i>group-name</i>	Name of the object group.
<i>attribute-name</i>	Attribute designated for the group. The attribute used in an object group must be a neutral attribute.

Command Default

None

Command Modes

Cisco VSG global configuration (config)

Supported User Roles

network-admin

Command History

Release	Modification
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 for 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#
```

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	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

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 <i>name</i>	Specifies a role for a feature group. The name can be any alphanumeric string up to 32 characters.
name <i>name</i>	Specifies the role name. The name can be any alphanumeric string up to 16 characters.
network-observer	Specifies the user role.

Defaults

This feature is enabled by default.

Command Modes

Global configuration

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
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	<i>rule-name</i>	Rule object.
Command Default	None	
Command Modes	Global configuration (config)	
Supported User Roles	network-admin	
Command History	Release	Modification
	5.2(1)VSG1(4.1)	This command was introduced.

Usage Guidelines Use the **rule** command to enter the rule configuration submode. The *rule-name* variable is used to specify the rule object that is to be configured.

Examples This example shows how to build firewall rules on the Cisco VSG:

```
vsg(config)# rule inet_web_rule
vsg(config-rule)# 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:** | **volatile:**]

Syntax Description	>	(Optional) Redirects the output to a file.
	bootflash:	(Optional) Designates the destination file system path; in this case, the bootflash: directory.
	volatile:	(Optional) Designates the destination file system path; in this case, the volatile: directory.

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		
	<i>message</i>	Message.
	session	Specifies a specific session.
	<i>device</i>	Device type.

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

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

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

Command History	Release	Modification
	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	<i>time</i> Sleep time, in seconds. The range is from 0 to 2147483647.
---------------------------	--

Defaults	Sleep time is not set.
-----------------	------------------------

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

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

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

Usage Guidelines	When you set <i>time</i> 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 | 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
---------------	------

Supported User Roles	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:
```


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 <i>number</i>	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: <pre>vsg(config)# ssh key rsa 770</pre>
----------	---

system cores

To copy cores to a destination, use the **system cores** command. To disable, use the **no** form of this command.

system cores tftp: *//server@ip-address*

no system cores tftp: *//server@ip-address*

Syntax Description	Parameter	Description
	tftp:	Specifies the Trivial File Transfer Protocol (TFTP) protocol.
	<i>server</i>	Destination server.
	<i>ip-address</i>	Destination IP address.

Command Default	Default Value
	None

Command Modes	Mode
	Global configuration (config)

Supported User Roles	User Roles
	network-admin network-operator

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

Examples	Example
	This example shows how to copy cores to a destination: vsg# system cores tftp://jjones@209.165.200.229

Related Commands	Command	Description
	show system cores	Displays the core transfer option.

system default switchport

To return to system-level default values, use the **system default switchport** command. To disable the default switchport feature, use the **no** form of this command.

system default switchport [shutdown]

no system default switchport [shutdown]

Syntax Description	shutdown (Optional) Shuts down the admin state.				
Command Default	None				
Command Modes	Global configuration (config)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to return to system-level default values:</p> <pre>vsg# system default switchport shutdown</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show system resources</td> <td>Displays system resources.</td> </tr> </tbody> </table>	Command	Description	show system resources	Displays system resources.
Command	Description				
show system resources	Displays system resources.				

system hap-reset

To reset local or remote supervisors after a high-availability (HA) failure, use the **system hap-reset** command. To disable the hap-reset feature, use the **no** form of this command.

system hap-reset

system no hap-reset

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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 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.
	<i>service-name</i>	Service name.

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 generate debug snapshots for services:

```
vsg# system internal snapshot service
```

Related Commands	Command	Description
	show system internal	Displays all internal commands.

system jumbomtu

To set the maximum transmission units (MTU) to jumbo, use the **system jumbomtu** command.

```
system jumbomtu 9216
```

Syntax Description	9216	Specifies the MTU size.
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 MTU size to jumbo: vsg# system jumbomtu 9216	
Related Commands	Command	Description
	show system resources	Displays the system resource details.

system memlog

To generate a memory log in bootflash, use the **system memlog** command.

system memlog

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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 internal memory-alerts-log	Displays a detailed log for memory alerts.
	show system internal memory-status	Displays memory status information.

system memory-thresholds

To set system memory thresholds, use the **system memory-thresholds** command.

```
system memory-thresholds { minor minor-memory-threshold severe severe memory-threshold
critical critical-memory-threshold | threshold critical no-process-kill }
```

Syntax Description		
minor		Sets the minor memory threshold.
<i>minor-memory-threshold</i>		Minor threshold as a percentage of memory. The range is from 50 to 100.
severe		Sets the severe memory threshold.
<i>severe memory-threshold</i>		Severe threshold as a percentage of memory. The range is from 50 to 100.
critical		Sets the critical memory threshold.
<i>critical-memory-threshold</i>		Critical threshold as a percentage of memory. The range is from 50 to 100.
threshold		Sets the threshold behavior.
critical		Sets the critical memory threshold.
no-process-kill		Specifies to not kill processes when out of memory.

Command Default None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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 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 shrink PSS files: <pre>vsg# system shrink pss</pre>
-----------------	--

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
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 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

system no 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: <pre>vsg# system standby manual-boot</pre>
----------	---

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

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 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	<i>mask</i>	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 0x0	
-----------------	---	--

Related Commands	Command	Description
	system default	Configures system-level default values.

system watchdog kgdb

To enable a system watchdog, use the **system watchdog** command. To disable a system watchdog, use the **no** form of this command.

system watchdog kgdb

no system watchdog kgdb

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.
<i>filename</i>	Name of the file.
<i>number</i>	(Optional) Number of lines to display.
debug:	Specifies the debug directory.
modflash:	Specifies the modflash directory.
volatile:	Specifies the volatile directory.

Defaults

10 lines

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
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		
<i>ipv4-address</i>		IPv4 address of the remote device.
<i>hostname</i>		Hostname of the remote device. The name is alphanumeric, case sensitive, and has a maximum of 64 characters.
<i>port-number</i>		(Optional) Port number for the Telnet session. The range is from 1 to 65535.
vrf <i>vrf-name</i>		(Optional) Specifies the virtual routing and forwarding (VRF) name used for the Telnet session. The name is case sensitive.

Defaults	
	Port 23
	Default VRF

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

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

Examples	
	This example shows how to start a Telnet session:
	<pre>vsg# telnet 10.10.1.1 vrf management</pre>

Related Commands	Command	Description
	clear line	Clears Telnet sessions.
	telnet server enable	Enables the Telnet server.

terminal alias

To display a terminal alias, use the **terminal alias** command. To disable the terminal alias, use the **no** form of this command.

terminal alias *word persist*

no terminal alias *word persist*

Syntax	Description
<i>word</i>	Name of the alias.
<i>persist</i>	Alias configuration saved.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	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	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to set the colorization of the command line:</p> <pre>vsg# terminal color persist</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal 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	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to set the command line edition keys:</p> <pre>vsg# terminal edit-mode vi</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal 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)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to bypass the CLI event manager:</p> <pre>vsg# terminal event-manager bypass</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal 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: <pre>vsg# terminal history no-exec-in-config</pre>
-----------------	--

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	<i>number</i>	Number of lines. The range is from 0 to 511.
Defaults	28 lines	
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.
Usage Guidelines	Set <i>number</i> to 0 to disable pausing.	
Examples	This example shows how to set the number of lines that appear on the screen: vsg# terminal length 60	
Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal log-all

To log all commands including the **show** commands, use the **terminal log-all** command.

terminal log-all

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to log all commands:
vsg# **terminal log-all**

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal monitor

To copy syslog output to the current terminal line, use the **terminal monitor** command.

terminal monitor

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	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	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to display show command output in XML:</p> <pre>vsg# terminal output xml</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal 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	<i>time</i>	Timeout time, in seconds. The range is from 0 to 525600.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	5.2.1VSG1(4.1)	This command was introduced.
Usage Guidelines	Set <i>time</i> to 0 to disable terminal session timeout.	
Examples	This example shows how to set the terminal session timeout: vsg# terminal session-timeout 100	
Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal terminal-type

To specify the terminal type, use the **terminal terminal-type** command.

terminal terminal-type *type*

Syntax Description	<i>type</i> Terminal type.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.
Release	Modification				
5.2.1VSG1(4.1)	This command was introduced.				
Examples	<p>This example shows how to specify the terminal type:</p> <pre>vsg# terminal terminal-type vt100</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal 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)

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 update the main parse tree:

```
vsg# terminal tree-update
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal verify-only

To verify commands, use the **terminal verify-only** command.

terminal verify-only username *word*

Syntax Description	username	Specifies the username for AAA authorization.
	<i>word</i>	Username.

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

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

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

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

Examples	This example shows how to verify commands: <pre>vsg# terminal verify-only</pre>
----------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal width

To set the terminal width, use the **terminal width** command.

terminal width *width*

Syntax Description	<i>width</i>	Sets the number of characters on a single line. The range is from 24 to 511.
--------------------	--------------	--

Defaults	102 columns
----------	-------------

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

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 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 | simulate-pe-enhanced-req }
```

Syntax Description	simulate-pe-req	Simulates the policy engine lookup.
	simulate-zone-req	Simulates the policy engine zone.
	simulate-pe-enhanced-req	Simulates the policy engine enhanced lookup.
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	<i>policy-name</i>	Policy to be tested or verified for configuration parameters.
---------------------------	--------------------	---

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

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

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

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

Examples	<p>This example shows how to test the ext-company policy.</p> <pre>vsm(config)# test policy-engine simulate-pe-req policy ext-company</pre>
-----------------	---

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

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		
<i>A.B.C.D.</i> <i>host-name</i>	IPv4 address or hostname of the destination device. The name is case sensitive.	
vrf <i>vrf-name</i>	(Optional) Specifies the virtual routing and forwarding (VRF) instance to use. The name is case sensitive.	
show-mpls-hops	(Optional) Displays the Multiprotocol Label Switching (MPLS) hops.	
source <i>src-ipv4-addr</i>	(Optional) Specifies a source IPv4 address. The format is <i>A.B.C.D.</i>	

Defaults	
	Uses the default VRF.
	Does not show the MPLS hops.
	Uses the management IPv4 address for the source address.

Command Modes	
	EXEC
	Global configuration (config)

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:
	<pre>vsg# traceroute 172.28.255.18 vrf management</pre>
	<pre>traceroute to 172.28.255.18 (172.28.255.18), 30 hops max, 40 byte packets</pre>
	<pre> 1 172.28.230.1 (172.28.230.1) 0.746 ms 0.595 ms 0.479 ms</pre>
	<pre> 2 172.24.114.213 (172.24.114.213) 0.592 ms 0.51 ms 0.486 ms</pre>
	<pre> 3 172.20.147.50 (172.20.147.50) 0.701 ms 0.58 ms 0.486 ms</pre>
	<pre> 4 172.28.255.18 (172.28.255.18) 0.495 ms 0.43 ms 0.482 ms</pre>

Related Commands	Command	Description
	traceroute6	Discovers the route to a device using IPv6 addressing.

username *name* password

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

username *name* password {**0** *password* | **5** *password* | *password*}

Syntax Description	<i>name</i>	Username.
	0 <i>password</i>	Specifies a password. 0 denotes that the password that follows should be set in clear text. The maximum size for <i>password</i> is 64 characters.
	5 <i>password</i>	Specifies a password. 5 denotes that the password that follows should be encrypted. The maximum size for <i>password</i> is 64 characters.
	<i>password</i>	Password in clear text. The maximum size for <i>password</i> is 64 characters.

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin

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

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

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

Usage Guidelines The Cisco VSG does not support multiple user accounts. It supports only the default admin user account.

Related Commands	Command	Description
	show users	Displays users.

where

To display your current context, use the **where** command.

where [detail]

Syntax Description	detail	(Optional) Displays detailed context information.
--------------------	--------	---

Defaults	Displays summary context information.
----------	---------------------------------------

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

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

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

Examples This example shows how to display summary context information:

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

Related Commands	Command	Description
	pwd	Displays what directory you are in.

write erase

To erase configurations in persistent memory areas, use the **write erase** command.

write erase [debug]

Syntax Description	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)						
Supported User Roles	network-admin network-operator						
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>5.2.1VSG1(4.1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	5.2.1VSG1(4.1)	This command was introduced.		
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 mgmt0 interface and debug configurations. To erase those configurations, specifically use the debug options.						
Examples	<p>This example shows how to erase the startup configuration:</p> <pre>vsg(config)# write erase Warning: This command will erase the startup-configuration. Do you wish to proceed anyway? (y/n) [n] y</pre> <p>This example shows how to erase the debug configuration in the persistent memory:</p> <pre>vsg(config)# write erase debug</pre>						
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>copy running-config startup-config</td> <td>Copies the running configuration to the startup configuration.</td> </tr> <tr> <td>show running-config</td> <td>Displays the startup configuration.</td> </tr> </tbody> </table>	Command	Description	copy running-config startup-config	Copies the running configuration to the startup configuration.	show running-config	Displays the startup configuration.
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

<i>zone-name</i>	Zone object that is to be configured.
------------------	---------------------------------------

Command Default

None

Command Modes

Global configuration (config)

Supported User Roles

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.

■ zone



Cisco Virtual Security Gateway Show Commands

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

show aaa

To display information about authentication, authorization, and accounting (AAA), use the **show aaa** command.

```
show aaa [accounting | authentication | authorization | groups | users]
```

Syntax Description	
accounting	(Optional) Displays the accounting configuration.
authentication	(Optional) Displays the authentication configuration.
authorization	(Optional) Displays the authorization configuration.
groups	(Optional) Displays configured groups.
users	(Optional) Displays remotely authenticated users.

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

You can use the following operators with the **show aaa** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display the AAA configuration:

```
vsg# show aaa authentication
      default: local
      console: local
```

Related Commands

Command	Description
password	Configures the password.

show ac-driver

To display application container statistics, use the **show ac-driver** command.

show ac-driver statistics

Syntax Description	statistics	Displays application container 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.

Usage Guidelines	<p>You can use the following operators with the show ac-driver command:</p> <ul style="list-style-type: none"> >—Redirects the output to a file. >>—Redirects the output to a file in append mode. —Pipes the command output to a filter.
------------------	---

Examples	<p>This example shows how to display application container statistics:</p> <pre>vsg# show ac-driver statistics #Packet Statistics: Rcvd Total 5510 Buffers in Use 3188 Rcvd vPath L2 Pkts 1140 Rcvd vPath IPV4 Pkts 0 Rcvd VPath Pkts 1140 Sent to VPath 1140 Sent to Service-Path 1140 Sent to Control-Path 4370 All Drops 0 Non-vPath LLC 0 Non-vPath OUI 0 Non-vPath type L2 0 Non-vPath IPV4 0 Non-vPath IPV4 UDP 0 Service-Path not Inited 0 Service-Path Down 0 Rcvd Bad Descriptor 0 Send to Service-Path Err 0 Packet Offset Err 0 Send Bad Descriptor 0 Send NIC Err 0</pre>
----------	--

Related Commands

Command	Description
show vsg	Displays information about a Cisco VSG.

show accounting

To display the accounting log, use the **show accounting** command.

show accounting log [**start-time** *year month day time* **end-time** *year month day time*]

Syntax Description	log	Displays the accounting log.
	start-time	(Optional) Displays the date in the log the display will start.
	<i>year month day time</i>	(Optional) Year, day and time. The range for <i>year</i> is from 1970 to 2030, and is in YYYY format. The values for <i>month</i> are Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, or Dec . The range for <i>day</i> is from 1 to 31, and is in dd format. <i>time</i> is in HH:MM:SS.
	end-time	(Optional) Displays the date in the log the display will end.

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 You can use the following operators with the **show accounting** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display the accounting log:

```
vsg# show accounting log
Fri Jan 21 17:19:35 2013:update:171.69.17.61@pts/0:admin:dir (SUCCESS)
Fri Jan 21 17:23:36 2013:update:10.193.73.130@ssh.3115:vsnbetauser:test vnspl
1 (SUCCESS)
Fri Jan 21 17:24:04 2013:update:10.193.73.130@ssh.3120:vsnbetauser:test vnspl
1 (SUCCESS)
```

```

Mon Jan 24 12:50:23 2013:start:171.70.216.167@pts/1:admin:
Mon Jan 24 12:52:59 2013:update:171.70.216.167@pts/1:admin:configure (SUCCESS)
Mon Jan 24 12:55:46 2013:stop:171.70.216.167@pts/1:admin:shell terminated gracefully
Wed Feb 2 13:56:54 2013:start:171.70.225.85@pts/2:admin:
Wed Feb 2 14:20:41 2013:stop:171.70.225.85@pts/2:admin:shell terminated because of telnet closed
Wed Feb 2 14:32:19 2013:start:171.70.225.85@pts/3:admin:
Wed Feb 2 14:39:48 2013:stop:171.70.225.85@pts/3:admin:shell terminated because of telnet closed
Fri Feb 4 12:16:43 2013:start:171.71.29.84@pts/4:admin:
Fri Feb 4 12:17:11 2013:update:171.71.29.84@pts/4:admin:configure (SUCCESS)
Fri Feb 4 12:18:22 2013:update:171.71.29.84@pts/4:admin:configure terminal ; vnm-policy-agent (SUCCESS)
Fri Feb 4 12:20:41 2013:stop:171.71.29.84@pts/4:admin:shell terminated because of telnet closed
Fri Feb 4 14:22:18 2013:start:171.71.29.84@pts/5:admin:
Fri Feb 4 14:23:05 2013:update:171.71.29.84@pts/5:admin:configure (SUCCESS)
Fri Feb 4 15:33:06 2013:stop:171.71.29.84@pts/5:admin:shell terminated because of telnet closed
Fri Feb 4 17:05:05 2013:start:171.71.29.84@pts/6:admin:
Fri Feb 4 18:25:32 2013:stop:171.71.29.84@pts/6:admin:shell terminated because of telnet closed
Mon Feb 7 14:12:19 2013:start:171.71.29.84@pts/7:admin:
Mon Feb 7 15:51:10 2013:stop:171.71.29.84@pts/7:admin:shell terminated because of telnet closed
Mon Feb 7 16:30:10 2013:start:171.71.29.84@pts/8:admin:
Mon Feb 7 19:11:13 2013:stop:171.71.29.84@pts/8:admin:shell terminated because of telnet closed
Wed Feb 9 14:43:26 2013:start:10.21.84.66@pts/9:admin:
Wed Feb 9 17:43:30 2013:stop:10.21.84.66@pts/9:admin:shell terminated because of telnet closed
Wed Feb 9 18:13:10 2013:start:10.21.84.66@pts/10:admin:
Wed Feb 9 18:40:00 2013:update:10.21.84.66@pts/10:admin:configure (SUCCESS)
Wed Feb 9 19:50:37 2013:start:10.21.84.66@pts/11:admin:
Wed Feb 9 20:49:00 2013:stop:10.21.84.66@pts/10:admin:shell terminated because of telnet closed
Wed Feb 9 22:03:36 2013:stop:10.21.84.66@pts/11:admin:shell terminated because of telnet closed
Thu Feb 10 18:41:45 2013:start:171.71.29.84@pts/12:admin:
Thu Feb 10 18:50:50 2013:stop:171.71.29.84@pts/12:admin:shell terminated because of telnet closed
Fri Feb 11 12:09:57 2013:start:171.71.29.84@pts/13:admin:
Fri Feb 11 16:55:21 2013:stop:171.71.29.84@pts/13:admin:shell terminated because of telnet closed
Fri Feb 11 18:19:49 2013:start:171.71.29.84@pts/14:admin:
Fri Feb 11 18:55:54 2013:stop:171.71.29.84@pts/14:admin:shell terminated because of telnet closed
Mon Feb 14 13:35:27 2013:start:171.71.29.84@pts/15:admin:

```

Related Commands

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

show banner

To display the banner, use the **show banner** command.

show banner motd

Syntax Description	motd	Displays the message of the day.
--------------------	------	----------------------------------

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	<p>You can use the following operators with the show banner command:</p> <ul style="list-style-type: none"> • >—Redirects the output to a file. • >>—Redirects the output to a file in append mode. • —Pipes the command output to a filter.
------------------	--

Examples	This example shows how to display the banner:
----------	---

```
vsg# show banner motd
Nexus 1000V VSG
```

Related Commands	Command	Description
	banner	Creates a banner message.

show boot

To display boot variables, use the **show boot** command.

show boot [**auto-copy** | **current** | **module** | **sup-1** | **sup-2** | **variables**]

Syntax Description		
auto-copy	(Optional)	Displays whether auto copy is enabled or disabled.
current	(Optional)	Displays whether the current boot variable is enabled or disabled.
module	(Optional)	Displays the boot variables for a specific module or all modules.
sup-1	(Optional)	Displays the current and next load boot variables for supervisor 1.
sup-2	(Optional)	Displays the current and next load boot variables for supervisor 2.
variables	(Optional)	Displays a list of boot variables.

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 You can use the following operators with the **show boot** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display boot variables:

```
vsg# show boot
Current Boot Variables:

sup-1
kickstart variable = bootflash:/ks.bin
system variable = bootflash:/sys.bin
sup-2
kickstart variable = bootflash:/ks.bin
system variable = bootflash:/sys.bin
```

■ show boot

```

No module boot variable set

Boot Variables on next reload:

sup-1
kickstart variable = bootflash:/ks.bin
system variable = bootflash:/sys.bin
sup-2
kickstart variable = bootflash:/ks.bin
system variable = bootflash:/sys.bin
No module boot variable set

```

Related Commands

Command	Description
boot	Creates boot variables.

show cdp

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

```
show cdp {all | entry | global | interface | internal | neighbors | traffic}
```

Syntax Description		
all		Displays all interfaces in the CDP database.
entry		Displays CDP entries in the CDP database.
global		Displays global CDP information.
interface		Displays CDP information for an interface.
internal		Displays private memory statistics for the UUID.
neighbors		Displays CDP neighbors.
traffic		Displays CDP traffic 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.

Usage Guidelines You can use the following operators with the **show cdp** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display all interfaces in the CDP database:

```
vsg# show cdp all
Interface Index :83886080
Interface mgmt0:
  Operational status: up
  Config status: enabled
```

■ show cdp

```
Refresh time: 60  
Hold time: 180
```

```
Interface Index :117440512  
Interface data0:  
Operational status: up  
Config status: enabled  
Refresh time: 60  
Hold time: 180
```

Related Commands

Command	Description
cdp	Configures CDP parameters.

show cli

To display command-line interface (CLI) information, use the **show cli** command.

```
show cli { alias | dynamic | history | interface | internal | list | syntax | variables }
```

Syntax Description	alias	Displays the CLI alias.
	dynamic	Display the current range of dynamic parameters.
	history	Displays the CLI command history.
	interface	Displays the CLI interface table.
	internal	Displays the CLI statistics.
	list	Displays the CLI command syntax.
	syntax	Displays the Extended Backus–Naur Form (EBNF) syntax of all commands.
	variables	Displays the CLI variables.

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 You can use the following operators with the **show cli** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display CLI variables:

```
vsg# show cli variables
VSH Variable List
-----
```

■ show cli

```
SWITCHNAME="vsg"  
TIMESTAMP="2013-02-14-17.33.37"
```

Related Commands

Command	Description
cli var	Defines CLI variables.

show clock

To display the clock, use the **show clock** command.

show clock [detail]

Syntax Description	detail	(Optional) Displays the day, the time, and the year.
--------------------	--------	--

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	<p>You can use the following operators with the show clock command:</p> <ul style="list-style-type: none"> • >—Redirects the output to a file. • >>—Redirects the output to a file in append mode. • —Pipes the command output to a filter.
------------------	---

Examples	This example shows how to display the clock:
----------	--

```
vsg# show clock detail
Mon Feb 14 17:47:44 UTC 2013
```

Related Commands	Command	Description
	clock	Manages the system clock.

show copyright

To display copyright information, use the **show copyright** command.

show copyright

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.

Usage Guidelines You can use the following operators with the **show copyright** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display copyright information:

```
vsg# show copyright
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2013, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
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 version build-info	Displays build information.

show cores

To display all core dumps, use the **show cores** command.

show cores

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.

Usage Guidelines You can use the following operators with the **show cores** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display all core dumps:

```
vsg# show cores
```

Related Commands	Command	Description
	show event-log	Displays the event log.

show debug

To show debug flags, use the **show debug** command.

```
show debug [aaa | arp | ascii-cfg | bootvar | capability | cdp | confcheck | core | evmc | evms | fm
| fs-daemon | igmp | im | ip | ipv6 | kadb | klm-rwsem | logfile | module | msp | mvsh | nsp-pa
| nsmgr | ntp | platform | plugin | redun_mgr | redundancy | res_mgr | sal | scheduler |
security | snmp | system | tcap | ttyd | vdc | vnm | vsh | vshd | xml]
```

Syntax Description

aaa	(Optional) Displays AAA debugging flags.
arp	(Optional) Displays ARP debugging flags.
ascii-cfg	(Optional) Displays ASCII-CFG debugging flags.
bootvar	(Optional) Displays boot variables debugging flags.
capability	(Optional) Displays capability debugging flags.
cdp	(Optional) Displays CDP debugging flags.
confcheck	(Optional) Displays all debugging flags of confcheck.
core	(Optional) Displays core daemon debugging flags.
evmc	(Optional) Displays EVMC debugging flags.
evms	(Optional) Displays EVMS debugging flags.
fm	(Optional) Displays feature manager debugging flags.
fs-daemon	(Optional) Displays FS daemon debugging flags.
im	(Optional) Displays IM debugging flags.
ip	(Optional) Displays IP information.
ipv6	(Optional) Displays IPv6 information.
kadb	(Optional) Displays kernel ADB debugging flags.
klm-rwsem	(Optional) Displays RWSEM driver debugging flags.
logfile	(Optional) Displays the log file.
module	(Optional) Displays module debugging flags.
msp	(Optional) Displays MSP debugging flags.
mvsh	(Optional) Displays MVSH debugging flags.
nsc-pa	(Optional) Displays NSC PA debugging flags.
nsmgr	(Optional) Displays NSMGR debugging flags.
ntp	(Optional) Displays NTP debugging flags.
platform	(Optional) Displays platform manager debugging flags.
plugin	(Optional) Displays plugin debugging flags.
redun_mgr	(Optional) Debug redundancy manager.
redundancy	(Optional) Displays redundancy driver debugging flags.
res_mgr	(Optional) Displays resource manager debugging flags.
sal	(Optional) Displays SAL debugging flags.
scheduler	(Optional) Displays scheduler debugging flags.
security	(Optional) Displays security debugging flags.
snmp	(Optional) Displays SNMP server debugging flags.

show debug

system	(Optional) Displays system debugging flags.
tcap	(Optional) Displays exception logger debugging flags.
tttd	(Optional) Displays TTYD debugging flags.
vdc	(Optional) Displays VDC manager debugging flags.
vmm	(Optional) Displays VMM debugging flags.
vsh	(Optional) Displays VSH debugging flags.
vshd	(Optional) Displays VSHD debugging flags.
xml	(Optional) Displays XML debugging flags.

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

You can use the following operators with the **show debug** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples

This example shows how to display AAA debug flags:

```
vsg# show debug aaa
```

Related Commands

Command	Description
show debug-filter	Displays debugging filters.

show debug-filter

To display debug filters, use the **show debug-filter** command.

```
show debug-filter {all | arp | ipv6}
```

Syntax	Description
all	Displays all debugs filters.
arp	Displays Address Resolution Protocol (ARP) debug filters.
ipv6	Displays IPv6 information.

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.

Usage Guidelines You can use the following operators with the **show debug-filter** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display debug filters:

```
vsg# show debug-filter all
```

Related Commands	Command	Description
	show debug	Displays debugging flags.

show event-log

To display the event log, use the **show event-log** command.

show event-log all

Syntax Description	all	Displays the event 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.

Usage Guidelines	<p>You can use the following operators with the show event-log command:</p> <ul style="list-style-type: none"> • >—Redirects the output to a file. • >>—Redirects the output to a file in append mode. • —Pipes the command output to a filter. <p>When you enter a show command that displays a long list of data, you can press Ctrl-C at any time to exit that list.</p>
-------------------------	---

Examples	<p>This example shows how to display the event log:</p> <pre>vsg# show event-log all</pre>
-----------------	--

Related Commands	Command	Description
	show event manager	Displays the event manager.
	internal	

show event manager internal

To display event manager events, use the **show event manager internal** command.

show event manager internal [**clients** | **evmc** | **evms** | **mvsh**]

Syntax Description		
	clients	(Optional) Display information about clients registered with EEM system.
	evmc	(Optional) Displays Event Manager Client commands.
	evms	(Optional) Displays Event Manager Server commands.
	mvsh	(Optional) Displays memory allocation 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.

Usage Guidelines You can use the following operators with the **show event manager** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display event manager errors:

```
vsg# show event manager internal evmc errors
1) Event:E_DEBUG, length:253, at 232142 usecs after Wed Feb 16 15:20:07 2013

[100] fu_sdb_handle_update: validation fail,
fu_is_state_active = 1,
fu_is_sync_pss_to_standby_enabled = 0,
mts_sync_event_get(mts_msg) = 0,
create_del) = 0
```

■ show event manager internal

- 2) Event:E_DEBUG, length:43, at 232138 usecs after Wed Feb 16 15:20:07 2013
[100] fu_sdb_handle_update: validation fail
- 3) Event:E_DEBUG, length:55, at 232136 usecs after Wed Feb 16 15:20:07 2013
[100] fu_sync_pss_to_standby_apply:Set of checks failed
- 4) Event:E_DEBUG, length:58, at 971337 usecs after Wed Feb 16 15:20:02 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 5) Event:E_DEBUG, length:58, at 971525 usecs after Wed Feb 16 15:19:57 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 6) Event:E_DEBUG, length:58, at 971719 usecs after Wed Feb 16 15:19:52 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 7) Event:E_DEBUG, length:58, at 971918 usecs after Wed Feb 16 15:19:47 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 8) Event:E_DEBUG, length:58, at 971103 usecs after Wed Feb 16 15:19:42 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 9) Event:E_DEBUG, length:58, at 971307 usecs after Wed Feb 16 15:19:37 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 10) Event:E_DEBUG, length:58, at 971524 usecs after Wed Feb 16 15:19:32 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 11) Event:E_DEBUG, length:58, at 971693 usecs after Wed Feb 16 15:19:27 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 12) Event:E_DEBUG, length:58, at 971886 usecs after Wed Feb 16 15:19:22 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 13) Event:E_DEBUG, length:58, at 971094 usecs after Wed Feb 16 15:19:17 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 14) Event:E_DEBUG, length:58, at 971275 usecs after Wed Feb 16 15:19:12 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 15) Event:E_DEBUG, length:58, at 971494 usecs after Wed Feb 16 15:19:07 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 16) Event:E_DEBUG, length:58, at 971702 usecs after Wed Feb 16 15:19:02 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg
- 17) Event:E_DEBUG, length:58, at 971921 usecs after Wed Feb 16 15:18:57 2013
[100] fu_sync_pss_to_standby_apply:Input event not MTS msg

```
18) Event:E_DEBUG, length:58, at 971218 usecs after Wed Feb 16 15:18:52 2013
    [100] fu_sync_pss_to_standby_apply:Input event not MTS msg

19) Event:E_DEBUG, length:58, at 971289 usecs after Wed Feb 16 15:18:47 2013
    [100] fu_sync_pss_to_standby_apply:Input event not MTS msg
```

Related Commands

Command	Description
<code>show event-log</code>	Displays the event log.

show feature

To display system features, use the **show feature** command.

show feature

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.

Usage Guidelines You can use the following operators with the **show feature** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display system features:

```
vsg# show feature
Feature Name      Instance  State
-----
dhcp-snooping    1         disabled
http-server      1         enabled
lACP              1         disabled
netflow          1         disabled
port-profile-roles 1         disabled
private-vlan     1         disabled
sshServer        1         enabled
tacacs           1         enabled
telnetServer     1         enabled
```

Related Commands	Command	Description
	show http-server	Displays the status of the HTTP server.

show file

To confirm a directory's existence, use the **show file** command.

```
show file { bootflash: | debug: | modflash: | volatile: }
```

Syntax Description	
bootflash:	Displays the bootflash directory.
debug:	Displays the debug directory.
modflash:	Displays the modflash directory.
volatile:	Displays the volatile directory.

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	<p>You can use the following operators with the show file command:</p> <ul style="list-style-type: none"> >—Redirects the output to a file. >>—Redirects the output to a file in append mode. —Pipes the command output to a filter.
------------------	--

Examples	<p>This example shows how to confirm the existence of the bootflash directory:</p> <pre>vsg# show file bootflash: /bin/showfile: /bootflash/: Is a directory</pre>
----------	--

Related Commands	Command	Description
	pwd	Displays the current directory.

show hardware

To display hardware statistics, use the **show hardware** command.

show hardware [capacity | internal]

Syntax	Description
capacity	(Optional) Displays usage levels.
internal	(Optional) Displays internal hardware information.

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.

Usage Guidelines You can use the following operators with the **show hardware** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display management 0 port statistics:

```
vsg# show hardware internal mgmt0 stats
eth1      Link encap:Ethernet  HWaddr 00:50:56:BB:00:38
          inet addr:10.193.73.138  Bcast:10.193.79.255  Mask:255.255.248.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1193889201 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1298817 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:162479674502 (151.3 GiB)  TX bytes:192218320 (183.3 MiB)
```

■ show hardware

Related Commands	Command	Description
	show interface	Displays interface status and information.

show hostname

To display the hostname, use the **show hostname** command.

show hostname

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.

Usage Guidelines You can use the following operators with the **show hostname** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the hostname:

```
vsg# show hostname
VSG129-2
```

Related Commands	Command	Description
	show hosts	Displays the hosts.

show hosts

To display hosts, use the **show hosts** command.

show hosts

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.

Usage Guidelines You can use the following operators with the **show hosts** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display hosts:

```
vsg# show hosts
DNS lookup enabled
Name/address lookup uses domain service
Name servers are 255.255.255.255
Host Address
tst1 209.165.200.227
tst2 209.165.200.229
```

Related Commands	Command	Description
	show hostname	Displays the hostname.

show http-server

To display the status of the HTTP server, use the **show http-server** command.

show http-server

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.

Usage Guidelines You can use the following operators with the **show http-server** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows to display the status of the HTTP server:

```
vsg# show http-server
http-server not enabled
```

Related Commands	Command	Description
	show feature	Displays system features.

show incompatibility

To display incompatibilities with an image, use the **show incompatibility** command.

```
show incompatibility system { bootflash: | volatile: }
```

Syntax Description		
system		Displays directories.
bootflash:		Displays the bootflash directory.
volatile:		Displays the volatile directory.

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	You can use the following operators with the show incompatibility command:
------------------	---

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples	This example shows to display incompatibilities with an image: <pre>vsg# show incompatibility system bootflash:nexus-1000v.5.2.1.VSG1.4.0.1.bin</pre>
----------	--

Related Commands	Command	Description
	show version image	Displays the software version of an image.

show inspect ftp statistics

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

```
show inspect ftp statistics [svs-domain]
```

Syntax Description	svs-domain (Optional) Displays the SVS domain identification number.
---------------------------	---

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.

Usage Guidelines You can use the following operators with the **show inspect ftp statistics** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows to display inspection FTP statistics:

```
vsg# show inspect ftp statistics
Input packets          1000
Dropped packets        6
Reset-drop packets     0
New connections        1
Deleted connections    0
IPC errors              0
IPC allocation errors  0
```

Related Commands	Command	Description
	show ip tftp	Displays TFTP client information.

show install all

To display installation logs, use the **show install all** command.

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

Syntax Description	failed-standby	Description
	failed-standby	Displays a log that reports failed-standby installations.
	failure-reason	Displays a log that reports the reason for failed installations.
	impact	Displays a log that reports the impact of installations.
	status	Displays a log that reports the status of the current installation.

Defaults None

Command Modes EXEC
Global configuration

SupportedUserRoles network-admin
network-operator

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

Usage Guidelines You can use the following operators with the **show install all** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display a log that reports the status of the current installation:

```
vsg# show install all status
No installation has taken place since the last reboot.
```

Related Commands	Command	Description
	show version image	Displays the software version of an image.

show interface

To display information about interfaces, use the **show interface** command.

```
show interface [brief | capabilities | counters | data | description | mac-address | mgmt |
snmp-ifindex | status | switchport | transceiver | trunk]
```

Syntax Description	
brief	(Optional) Displays brief information about an interface.
capabilities	(Optional) Displays information about interface capabilities.
counters	(Optional) Displays interface counters.
data	(Optional) Displays the data interface.
description	(Optional) Displays a description of an interface.
mac-address	(Optional) Displays the MAC address of an interface.
mgmt	(Optional) Displays the management interface.
snmp-ifindex	(Optional) Displays the SNMP ifindex list.
status	(Optional) Displays the interface line status.
switchport	(Optional) Displays the switchport interface.
transceiver	(Optional) Displays interface transceiver information.
trunk	(Optional) Displays trunk interface 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.

Usage Guidelines

You can use the following operators with the **show interface** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display information about the management 0 interface:

```
vsg# show interface mgmt 0
mgmt0 is up
  Hardware: Ethernet, address: 0050.56bb.0038 (bia 0050.56bb.0038)
  Internet Address is 10.193.73.138/21
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA
  full-duplex, 10 Gb/s
  Auto-Negotiation is turned on
  1 minute input rate 44136 bits/sec, 62 packets/sec
  1 minute output rate 1808 bits/sec, 1 packets/sec
  Rx
    755797571 input packets 131701 unicast packets 2575417 multicast packets
    753090453 broadcast packets 107614075553 bytes
  Tx
    1240518 output packets 1144680 unicast packets 43411 multicast packets
    52427 broadcast packets 203763544 bytes
```

Related Commands

Command	Description
show ip interface	Displays IP interface information.

show ip

To display IP statistics, use the **show ip** command.

```
show ip {adjacency | arp | client | interface | internal | logging | process | route | static-route |
traffic}
```

Syntax Description		
adjacency		Displays the IP adjacency table.
arp		Displays IP Address Resolution Protocol (ARP) table and statistics.
client		Displays clients registered with the IP process.
interface		Displays the IP interface information.
internal		Displays the internal IP information.
logging		Displays the IP policy logging table.
process		Displays the global IP information.
route		Displays the routing information.
static-route		Displays the configured static routes.
traffic		Displays IP software processed traffic 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.

Usage Guidelines

You can use the following operators with the **show ip** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display IP traffic statistics:

```
vsg# show ip traffic
IP Software Processed Traffic Statistics
-----
Transmission and reception:
  Packets received: 647601245, sent: 1145486, consumed: 0,
  Forwarded, unicast: 1099007, multicast: 0, Label: 0
Opts:
  end: 0, nop: 0, basic security: 0, loose source route: 0
  timestamp: 0, record route: 0
  strict source route: 0, alert: 4,
  other: 0
Errors:
  Bad checksum: 0, packet too small: 0, bad version: 0,
  Bad header length: 0, bad packet length: 0, bad destination: 0,
  Bad ttl: 0, could not forward: 645386546, no buffer dropped: 0,
  Bad encapsulation: 20, no route: 377, non-existent protocol: 0
  MBUF pull up fail: 0
Fragmentation/reassembly:
  Fragments received: 0, fragments sent: 0, fragments created: 0,
  Fragments dropped: 0, packets with DF: 0, packets reassembled: 0,
  Fragments timed out: 0
ICMP Software Processed Traffic Statistics
-----
Transmission:
  Redirect: 30725, unreachable: 0, echo request: 0, echo reply: 0,
  Mask request: 0, mask reply: 0, info request: 0, info reply: 0,
  Parameter problem: 0, source quench: 0, timestamp: 0,
  Timestamp response: 0, time exceeded: 0,
  Irdp solicitation: 0, irdp advertisement: 0
Reception:
  Redirect: 0, unreachable: 0, echo request: 0, echo reply: 0,
  Mask request: 0, mask reply: 0, info request: 0, info reply: 0,
  Parameter problem: 0, source quench: 0, timestamp: 0,
  Timestamp response: 0, time exceeded: 0,
  Irdp solicitation: 0, irdp advertisement: 0,
  Format error: 0, checksum error: 0
Statistics last reset: never
```

Related Commands

Command	Description
show ipv6	Displays IPv6 information.

show ipv6

To display IPv6 statistics, use the **show ipv6** command.

```
show ipv6 {adjacency | icmp | mld | nd | neighbor | route | routers}
```

Syntax Description	Parameter	Description
	adjacency	Displays the IPv6 adjacency table.
	icmp	Displays ICMPv6 information.
	mld	Displays Multicast Listener Discovery information.
	nd	Displays Neighbor Discovery interface information.
	neighbor	Displays IPv6 neighbor information.
	route	Displays the IPv6 routing table.
	routers	Displays neighbor routing 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.

Usage Guidelines You can use the following operators with the **show ipv6** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display an IPv6 adjacency table:

```
vsg# show ipv6 adjacency summary
IPv6 AM Table - Adjacency Summary

Static   : 2
Dynamic  : 03
Others   : 0
Total    : 5
```

Related Commands

Command	Description
show ip	Displays IP information.

show kernel internal

To display kernel information, use the **show kernel** command.

```
show kernel internal {aipc | cpuhogmon | ide-statistics | malloc-stats | meminfo | messages |
skb-stats | softnetstat}
```

Syntax Description		
aipc		Displays kernel AIPC information.
cpuhogmon		Displays CPU hog monitoring.
ide-statistics		Displays IDE statistics.
malloc-stats		Displays malloc statistics.
meminfo		Displays kernel memory usage information.
messages		Displays kernel messages.
skb-stats		Displays SK buffer allocation statistics.
softnetstat		Displays kernel network queue 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.

Usage Guidelines You can use the following operators with the **show kernel internal** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display information about memory:

```
vsg# show kernel internal meminfo
MemTotal:      1944668 kB
MemFree:       909024 kB
Buffers:       70880 kB
Cached:        397144 kB
```

■ show kernel internal

```

RAMCached:      351732 kB
Allowed:        486167 Pages
Free:           227256 Pages
Available:      257029 Pages
SwapCached:     0 kB
Active:         567632 kB
Inactive:       329852 kB
HighTotal:      1179584 kB
HighFree:       334080 kB
LowTotal:       765084 kB
LowFree:        574944 kB
SwapTotal:      0 kB
SwapFree:       0 kB
Dirty:          0 kB
Writeback:      0 kB
Mapped:         548996 kB
Slab:           29756 kB
CommitLimit:   972332 kB
Committed_AS:  943536 kB
PageTables:    4064 kB
VmallocTotal:  114680 kB
VmallocUsed:   87644 kB
VmallocChunk:  26940 kB

```

Related Commands

Command	Description
show system internal kernel	Displays kernel information.

show line

To display the command line configuration, use the **show line** command.

```
show line [com1 | console]
```

Syntax Description	com1	(Optional) Displays the auxiliary command line configuration.
	console	(Optional) Displays the console command line 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.

Usage Guidelines You can use the following operators with the **show line** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the command line configuration:

```
vsg# show line
line Console:
  Speed:          9600 baud
  Databits:       8 bits per byte
  Stopbits:       1 bit(s)
  Parity:         none
  Modem In:       Disable
  Modem Init-String -
    default : ATE0Q1&D2&C1S0=1\015

line Aux:
  Speed:          9600 baud
  Databits:       8 bits per byte
  Stopbits:       1 bit(s)
  Parity:         none
```

■ show line

```
Modem In: Disable
Modem Init-String -
    default : ATE0Q1&D2&C1S0=1\015
Hardware Flowcontrol: ON
```

Related Commands

Command	Description
cli	Configures the command line.

show logging

To display logging information, use the **show logging** command.

```
show logging [console | info | internal | last | level | logfile | module | monitor | pending |
pending-diff | server | session | status | timestamp]
```

Syntax Description	
console	(Optional) Displays the console logging configuration.
info	(Optional) Displays the logging configuration.
internal	(Optional) Displays syslog information.
last	(Optional) Displays the last few lines of a log.
level	(Optional) Displays the facility logging configuration.
logfile	(Optional) Displays a log file.
module	(Optional) Displays the module logging configuration.
monitor	(Optional) Displays the monitor logging configuration.
pending	(Optional) Displays the server address pending configuration.
pending-diff	(Optional) Displays the server address pending configuration.
server	(Optional) Displays the server logging configuration.
session	(Optional) Displays the logging session status.
status	(Optional) Displays the logging status.
timestamp	(Optional) Displays the logging time-stamp 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.

Usage Guidelines You can use the following operators with the **show logging** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples

This example shows how to display the logfile:

```
VSG129-2# show logging logfile start-seqn 1
Last Log cleared/wrapped time is : None
1: 2013 Jan 21 17:17:21 VSG129-2 %KERN-2-SYSTEM_MSG: Starting kernel... - kernel
2: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: PCI: Cannot allocate resource region 1 of device 0000:00:0f.0 - kernel
3: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: sda: assuming drive cache: write through - kernel
4: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: sda: assuming drive cache: write through - kernel
5: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: CMOS: Module initialized - kernel
6: 2013 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: calling register_stun_set_domain_id() - kernel
7: 2013 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: register_stun_set_domain_id() - kernel
8: 2013 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: Successfully registered SNAPP client for SNAP=0x00000c013200 0xf1117360 - kernel
9: 2013 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: STUN : Successfully created Socket - kernel
10: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : Entered - kernel
11: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : SW version is set 5.2.1VSG1(4.1) - kernel
12: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
13: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: No subnet declaration for ftp0 (127.2.1.1). - dhcpd
14: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: ** Ignoring requests on ftp0. If this is not what - dhcpd
15: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: you want, please write a subnet declaration - dhcpd
16: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: in your dhcpd.conf file for the network segment - dhcpd
17: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: to which interface ftp0 is attached. ** - dhcpd
18: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
19: 2013 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: Not configured to listen on any interfaces! - dhcpd
20: 2013 Jan 21 17:17:21 VSG129-2 %USER-2-SYSTEM_MSG: CLIS: loading cmd files begin - clis
21: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : Entered - kernel
22: 2013 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : Host name is set VSG129-2 - kernel
23: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
24: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: No subnet declaration for ftp0 (127.2.1.1). - dhcpd
25: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: ** Ignoring requests on ftp0. If this is not what - dhcpd
26: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: you want, please write a subnet declaration - dhcpd
27: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: in your dhcpd.conf file for the network segment - dhcpd
28: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: to which interface ftp0 is attached. ** - dhcpd
29: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
30: 2013 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: Not configured to listen on any interfaces! - dhcpd
```

```

31: 2013 Jan 21 17:17:23 VSG129-2 %MODULE-5-ACTIVE_SUP_OK: Supervisor 1 is activ
e (serial: T5056BB0038)
32: 2013 Jan 21 17:17:23 VSG129-2 %PLATFORM-5-MOD_STATUS: Module 1 current-statu
s is MOD_STATUS_ONLINE/OK
33: 2013 Jan 21 17:17:26 VSG129-2 %USER-2-SYSTEM_MSG: CLIS: loading cmd files en
d - clis
34: 2013 Jan 21 17:17:26 VSG129-2 %USER-2-SYSTEM_MSG: CLIS: init begin - clis
35: 2013 Jan 21 17:17:44 VSG129-2 %USER-2-SYSTEM_MSG: Invalid feature name eth-p
ort-sec - clis
36: 2013 Jan 21 17:18:00 VSG129-2 %POLICY_ENGINE-5-POLICY_ACTIVATE_EVENT: Policy
pl is activated by profile spl
37: 2013 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: mgmt0 is DOWN in vdc 1
38: 2013 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: mgmt0 is UP in vdc 1
39: 2013 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: data0 is DOWN in vdc 1
40: 2013 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: data0 is UP in vdc 1
41: 2013 Jan 21 17:18:00 VSG129-2 %POLICY_ENGINE-5-POLICY_COMMIT_EVENT: Commit o
peration SUCCESSFUL
42: 2013 Jan 21 17:18:00 VSG129-2 %VDC_MGR-2-VDC_ONLINE: vdc 1 has come online
43: 2013 Jan 24 12:53:47 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.70.216.167@pts/1
44: 2013 Feb 7 16:30:00 VSG129-2 %AUTHPRIV-3-SYSTEM_MSG: pam_aaa:Authentication
failed for user admin from 171.71.29.84 - sshd[7496]
45: 2013 Feb 9 18:41:38 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 10.21.84.66@pts/10
46: 2013 Feb 14 14:15:31 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/15
47: 2013 Feb 14 15:58:21 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/15
48: 2013 Feb 14 16:34:25 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/15
49: 2013 Feb 14 18:38:57 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/16
50: 2013 Feb 17 20:18:55 VSG129-2 %AUTHPRIV-3-SYSTEM_MSG: pam_aaa:Authentication
failed for user admin from 10.21.144.180 - sshd[23785]
51: 2013 Feb 18 15:14:03 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/22
52: 2013 Feb 21 13:16:43 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/26
53: 2013 Feb 21 14:08:23 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/26
54: 2013 Feb 22 11:47:27 VSG129-2 %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from
vty by admin on 171.71.29.84@pts/28

```

Related Commands

Command	Description
show event-log	Displays the event log.

show ntp

To display Network Time Protocol (NTP) information, use the **show ntp** command.

```
show ntp [authentication-keys | authentication-status | internal | logging-status | peer-status |
peers | pending | pending-diff | rts-update | session | source | statistics | status | trusted-keys]
```

Syntax	Description
authentication-keys	(Optional) Displays the authentication keys.
authentication-status	(Optional) Displays the NTP Authentication status.
internal	(Optional) Displays internal NTP information.
logging-status	(Optional) Displays the NTP logging status.
peer-status	(Optional) Displays the status of all the peers.
peers	(Optional) Displays all the peers.
pending	(Optional) Displays the NTP temporary database.
pending-diff	(Optional) Displays the pending database difference.
rts-update	(Optional) Displays the status of RTS.
session	(Optional) Displays the session information.
source	(Optional) Displays the source IP address.
statistics	(Optional) Displays NTP statistics.
status	(Optional) Show the NTP distribution status.
trusted-keys	(Optional) Displays the trusted keys.

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.

Usage Guidelines You can use the following operators with the **show ntp** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display local NTP statistics:

```
VSG129-2# show ntp statistics local
system uptime:          2669747
time since reset:      2669747
old version packets:   0
new version packets:  10
unknown version number: 0
bad packet format:    0
packets processed:    0
bad authentication:   0
```

Related Commands

Command	Description
show clock	Displays the time.

show password

To enable the password strength check, use the **show password** command.

show password strength-check

Syntax	Description
strength-check	Displays the strength of the password.

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.

Usage Guidelines	You can use the following operators with the show password command: <ul style="list-style-type: none"> • >—Redirects the output to a file. • >>—Redirects the output to a file in append mode. • —Pipes the command output to a filter.
------------------	---

Examples	This example shows how to enable password strength check: <pre>vsg# show password strength-check Password strength check enabled vsg#</pre>
----------	---

Related Commands	Command	Description
	show aaa	Display authentication and authorization information.

show policy-engine

To display policy engine statistics, use the **show policy-engine** command.

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

Syntax Description	
<i>policy-name</i>	Name of the policy engine.
stats	Displays 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.

Usage Guidelines You can use the following operators with the **show policy-engine** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display policy engine statistics:

```
vsg# show policy-engine stats

Policy Match Stats:

p1           :      30378
  r1         :      30378 (Permit)
  NOT_APPLICABLE :          0 (Drop)
```

Related Commands	Command	Description
	policy	Configures a policy.

show processes

To display processes, use the **show processes** command.

show processes [cpu | log | memory | vdc]

Syntax Description	cpu	(Optional) Displays information about CPU processes.
	log	(Optional) Displays information about process logs.
	memory	(Optional) Displays information about memory processes.
	vdc	(Optional) Displays information about virtual device context (VDC) processes.

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 You can use the following operators with the **show processes** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display information about memory processes:

```
vsg(config)# show processes memory
```

```

PID      MemAlloc  MemLimit  MemUsed   StackBase/Ptr  Process
-----
  1      147456    0          1441792   bffffe60/bffff950  init
  2           0  0           0           0/0             ksoftirqd/0
  3           0  0           0           0/0             desched/0
  4           0  0           0           0/0             events/0

```

```

5          0 0          0          0/0          khelper
10         0 0          0          0/0          kthread
18         0 0          0          0/0          kblockd/0
35         0 0          0          0/0          khubd
188        0 0          0          0/0          pdflush
189        0 0          0          0/0          pdflush
190        0 0          0          0/0          kswapd0
191        0 0          0          0/0          aio/0
776        0 0          0          0/0          kseriod
823        0 0          0          0/0          kide/0
833        0 0          0          0/0          ata/0
837        0 0          0          0/0          scsi_eh_0
1175       0 0          0          0/0          kjournald
1180       0 0          0          0/0          kjournald
1740       0 0          0          0/0          kjournald
1747       0 0          0          0/0          kjournald
1976       155648 0          1536000    bffffdb0/bffffcb0 portmap
1989        0 0          0          0/0          nfsd
1990        0 0          0          0/0          nfsd
1991        0 0          0          0/0          nfsd
1992        0 0          0          0/0          nfsd
1993        0 0          0          0/0          nfsd
1994        0 0          0          0/0          nfsd
1995        0 0          0          0/0          nfsd
1996        0 0          0          0/0          nfsd
1997        0 0          0          0/0          lockd
1998        0 0          0          0/0          rpciod
2003       180224 0          1642496    bffffd80/bffffb60 rpc.mountd
2009       159744 0          1601536    bffffda0/bffffb10 rpc.statd
2036       2551808 0          15540224   bffffd40/bffffed20 sysmgr
2319        0 0          0          0/0          mping-thread
2320        0 0          0          0/0          mping-thread
2336        0 0          0          0/0          stun_kthread
2337        0 0          0          0/0          stun_arp_mts_kt
2338        0 0          0          0/0          stun_packets_re
2373        0 0          0          0/0          redun_kthread
2374        0 0          0          0/0          redun_timer_kth
2513        0 0          0          0/0          sf_rdn_kthread
2514       364544 214619750  69095424   bffffa40/bffff8b0 xinetd
2515       421888 95819750   68964352   bffffa70/bffff8a0 tftpd
2516       23015424 125824371  106741760  bffffa40/bffffe73c syslogd
2517       933888 109213561  74809344   bffffa80/bffffe850 sdwrapd
2519       4120576 0          81752064   bffffa70/bffff79e0 platform
2524        0 0          0          0/0          ls-notify-mts-t
2537       282624 92591910   74170368   bffffa70/bffffe058 pfm_dummy
2545       155648 0          1441792    bffffa60/bffff988 klogd
2552       2109440 393881241  78864384   bffffa80/bffff278 vshd
2553       1073152 95385382   76709888   bffffa80/bffffe4d0 stun
2554       2732032 367819865  144842752  bffffa30/bffff690 smm
2555       1155072 165002041  75182080   bffffa50/bffffe4b0 session-mgr
2556       479232 135244736  73154560   bffffa40/bffff770 psshelper
2557       212992 96888422   69488640   bffff9f0/bffffe680 lmgrd
2558       528384 91650240   73543680   bffffa60/bffff5f8 licmgr
2559       512000 92225126   78594048   bffffa90/bffff260 fs-daemon
2560       397312 85133312   72286208   bffffa60/bfff3690 feature-mgr
2561       315392 85106278   72122368   bffffa70/bffff840 confcheck
2562       958464 92785651   74874880   bffffa60/bffffe910 capability
2563       479232 135244736  73154560   bffffa20/bffff750 psshelper_gsvc
2573       217088 0          2572288    bffff9c0/bffff820 cisco
2576       7733248 664149376  106373120  bffffa30/bffff3e0 clis
2583       2248704 372636352  103321600  bffffa50/bffffd960 port-profile
2585       274432 85254963   72257536   bffffa60/bffff830 xmlma
2586       1245184 95083507   76578816   bffffa60/bffffe2dc vnm_pa_intf
2587       2146304 115889523  76902400   bffffa60/bffffe060 vmm

```

show processes

2588	708608	127975372	76795904	bffffa70/bffffe9c0	vdc_mgr
2589	634880	109440179	84406272	bffffaa0/bffff3c0	ttyd
2590	450560	78402579	70279168	bffffa70/bffff530	sysinfo
2591	438272	91884531	73687040	bffffa80/bffff490	sksd
2593	610304	91614195	73551872	bffffa70/bffff234	res_mgr
2594	1028096	93695782	75186176	bffffa80/bffffe4b0	plugin
2595	3956736	375542464	94433280	bffffa50/bffff4f0	npacl
2596	811008	175709177	74731520	bffffa60/bffffb80	mvsh
2597	2596864	109250944	79581184	bffffa80/bffffcf70	module
2598	3489792	182622105	87179264	bffffa80/bffffd980	fwm
2599	1175552	100089228	81141760	bffffa60/bffffe490	evms
2600	1015808	93312806	74964992	bffffa60/bffffe4a0	evmc
2601	581632	92554035	84045824	bffffa90/bffff470	core-dmon
2602	454656	92722572	74289152	bffffa80/bffff3b0	bootvar
2603	9854976	367171059	93200384	bffffa60/bffff4c0	ascii-cfg
2604	647168	87422156	74403840	bffffa40/bffffe678	securityd
2605	1048576	98226585	84234240	bffffa60/bffffdce0	cert_enroll
2606	495616	87332044	75096064	bffffa60/bffffe850	aaa
2614	5029888	369338252	86528000	bffffa50/bffff960	l3vm
2615	4288512	366242905	106196992	bffffa50/bffff950	u6rib
2616	6340608	367112486	129155072	bffffa50/bffff8c0	urib
2617	1568768	139989132	77787136	bffffa70/bffffe680	ExceptionLog
2618	3047424	116793318	86609920	bffffa80/bffffe490	ifmgr
2619	806912	87336550	74678272	bffffa80/bffffe8c0	tcap
2623	5693440	262289420	137621504	bffffa10/bffffd8f0	snmpd
2636	163840	293819750	68661248	bffffa20/bffff018	PMon
2637	3104768	256175321	84361216	bffffa50/bffffe210	aclmgr
2662	9428992	373095923	151752704	bffffa50/bffff530	adjmgr
2676	4755456	366648409	128327680	bffffa50/bffff920	arp
2677	6037504	369130995	110952448	bffffa40/bffff2c8	icmpv6
2678	53452800	584746060	201703424	bffffa20/bffff490	netstack
2751	1368064	229098848	124534784	bffffa40/bffffdac0	radius
2752	233472	98996198	69996544	bffffa30/bffff8c8	ip_dummy
2753	233472	98996198	69996544	bffffa30/bffff8c8	ipv6_dummy
2754	1826816	165916537	126001152	bffffa50/bffffeb30	ntp
2755	233472	98996198	69996544	bffffa30/bffff8c8	pktmgr_dummy
2756	233472	98996198	69996544	bffffa30/bffff8c8	tcpudp_dummy
2758	1097728	202319744	126873600	bffffa60/bffffed90	cdp
2762	1024000	109019750	80056320	bffff990/bffffec90	dcos-xinetd
2764	729088	0	12656640	bffffef0/bffff220	ntpd
2881	1409024	113508736	83517440	bffffa80/bffffe0a0	vsim
2882	2785280	366824128	90828800	bffffa60/bffffdbb0	ufdm
2883	1273856	365913996	140460032	bffffa60/bffffd970	sal
2884	2342912	107612243	84082688	bffffa60/bffffd940	pltfm_config
2885	4083712	206235110	88436736	bffffa50/bffffd970	monitor
2886	3870720	317199308	90644480	bffffa50/bffffdf80	ipqosmgr
2887	7446528	504510195	132648960	bffffa50/bffff980	igmp
2888	5025792	186650112	89972736	bffffa40/bffffd8f0	eth-port-sec
2889	2170880	199314508	82145280	bffffa60/bffffe220	copp
2890	2453504	118573030	87961600	bffffa40/bffffd730	eth_port_channel
2891	8450048	156970739	94244864	bffffa50/bffffe990	vlan_mgr
2892	14442496	309585689	102936576	bffffa60/bffffdb40	ethpm
2933	1544192	204094950	85684224	bffffa60/bffffe480	msh
2936	1048576	93330828	74928128	bffffa50/bffffe480	vsr_service_mgr
2937	169234432	1191148288	251592704	bffffa60/bffffe48c	sp
2938	10510336	651213798	103919616	bffffa40/bffffe89c	policy_engine
2939	3485696	633948339	85774336	bffffa40/bffffe24c	inspect
3006	159744	0	1441792	bffffdc0/bffffc58	getty
3007	172032	0	1527808	bffffd90/bffffc28	getty
3019	1142784	0	14630912	bffffa30/bffffe810	dcos_sshd
3021	1167360	0	31797248	bffffdc0/bffffaa0	vsh
28520	1142784	0	14630912	bffffa30/bffffe810	dcos_sshd
28521	1167360	0	31797248	bffffdc0/bffffa7c8	vsh
30327	155648	0	1712128	bffffcf0/bffffb4c	more

```
30328 1167360 0 31830016 bffffdc0/bfffa2d8 vsh
30329 0 0 0 bffffa10/bffffef28 ps
```

All processes: MemAlloc = 445857792

Related Commands

Command	Description
show system resources	Displays memory usage.

show redundancy status

To display redundancy status, use the **show redundancy status** command.

show redundancy status

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

Usage Guidelines You can use the following operators with the **show redundancy status** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display redundancy status:

```
vsg# show redundancy status
Redundancy role
-----
      administrative:  standalone
      operational:    standalone

Redundancy mode
-----
      administrative:  HA
      operational:    None

This supervisor (sup-1)
-----
      Redundancy state:  Active
      Supervisor state:  Active
      Internal state:   Active with no standby
```

```

Other supervisor (sup-2)
-----
Redundancy state:   Not present

Supervisor state:   N/A
Internal state:     N/A

System start time:   Fri Jan 21 15:45:28 2013

System uptime:       32 days, 1 hours, 46 minutes, 2 seconds
Kernel uptime:      32 days, 0 hours, 14 minutes, 45 seconds
Active supervisor uptime: 32 days, 1 hours, 45 minutes, 20 seconds

```

Related Commands

Command	Description
show system redundancy status	Displays the system redundancy status.

show resource

To display resources, use the **show resource** command.

```
show resource [internal | monitor-session | port-channel | u4route-mem | u6route-mem | vlan |
vrf ]
```

Syntax Description	
internal	(Optional) Displays resource manager information.
monitor-session	(Optional) Displays monitor session information.
port-channel	(Optional) Displays port-channel information.
u4route-mem	(Optional) Displays u4route memory information.
u6route-mem	(Optional) Displays u6route memory information.
vlan	(Optional) Displays VLAN information.
vrf	(Optional) Displays the virtual routing and forwarding (VRF) 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.

Usage Guidelines You can use the following operators with the **show resource** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display resources:

```
vsg# show resource
```

Resource	Min	Max	Used	Unused	Avail
vlan	16	2049	2	14	2047
monitor-session	0	2	0	0	2

vrf	16	8192	2	14	8190
port-channel	0	768	0	0	768
u4route-mem	32	32	1	31	31
u6route-mem	16	16	1	15	15

Related Commands

Command	Description
<code>show system resources</code>	Displays system resources.

show role

To show user role information, use the **show role** command.

```
show role [feature | name role-name | pending | pending-diff | session | status]
```

Syntax Description	feature	(Optional) Displays role features.
	name	(Optional) Displays the role name.
	<i>role-name</i>	Name of role.
	pending	(Optional) Displays uncommitted role configurations.
	pending-diff	(Optional) Displays uncommitted role configurations.
	session	(Optional) Displays the role session status.
	status	(Optional) Displays the role status.

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 You can use the following operators with the **show role** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display the details of the network-admin role:

```
vsg# show role name network-admin

Role: network-admin
Description: Predefined network admin role has access to all commands
on the switch
-----
Rule      Perm   Type      Scope      Entity
-----
1         permit read-write
```

Related Commands

Command	Description
show users	Displays users.

show running-config

To display running configurations, use the **show running-config** command.

```
show running-config [aaa | diff | ip | port-profile | eem | ipqos | vrf | exclude | ipv6 | adjmgr |
exclude-provision | l3vm | rpml | vshd | all | expand-port-profile | license | security | arp |
icmpv6 | monitor | cdp | cert-enroll | interface | ntp | vdc-all]
```

Syntax Description

aaa	(Optional) Displays the Authentication, Authorization and Accounting (AAA) configuration.
adjmgr	(Optional) Displays adjacency manager information.
all	(Optional) Displays the current operating configurations.
arp	(Optional) Displays Address Resolution Protocol (ARP) information.
cdp	(Optional) Displays the Cisco Discovery Protocol (CDP) configuration.
diff	(Optional) Displays the difference between the running and startup configurations.
eem	(Optional) Displays the event manager running configuration.
exclude	(Optional) Excludes the running configuration of specified features.
exclude-provision	(Optional) Exclude configuration for offline pre-provisioned interfaces.
expand-port-profile	(Optional) Displays port profile information.
icmpv6	(Optional) Displays Internet Control Message Protocol (ICMPv6) information.
interface	(Optional) Displays interface configurations.
ip	(Optional) Displays Internet Protocol (IP) information.
l3vm	(Optional) Displays Layer 3 Virtual Machine (L3VM) information.
ntp	(Optional) Displays Network Time Protocol (NTP) information.
network	(Optional) Displays the network information.
object-group	(Optional) Displays the object-group configuration.
policy	(Optional) Displays the policy configuration.
rule	(Optional) Displays the rule configuration.
security	(Optional) Displays the security configurations.
snmp	(Optional) Displays the SNMP configuration.
vdc-all	(Optional) Displays all virtual device context (VDC) configurations.
vrf	(Optional) Displays Virtual Routing and Forwarding (VRF) information.
vshd	(Optional) Displays the running configuration for virtual shared hardware device (VSHD).
zone	(Optional) Displays the zone 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.

Usage Guidelines You can use the following operators with the **show running-config** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you enter a **show** command that displays a long list of data, you can press **Ctrl-C** at any time to exit that list.

Examples This example shows how to display the running configuration:

```
vsg# show running-config

!Command: show running-config
!Time: Sat Jul 6 04:34:01 2013

version 5.2(1)VSG1(4.1)
system memory-thresholds minor 50 severe 80 critical 89
system memory threshold critical no-process-kill

logging level feature-mgr 0
hostname firewall

no feature telnet

role feature-group name 123
username admin password 5 $1$0gfpvdjy$yvn.yLZ9wK4uJUHieAnBH. role network-admin
username admin role network-operator
no password strength-check

banner motd #Nexus 1000v Switch
#

ssh key rsa 2048
no ip domain-lookup
ip host firewall 10.2.71.65
ntp server 10.2.71.69
```

```

vrf context management
  ip route 0.0.0.0/0 10.2.0.1
port-channel load-balance ethernet source-mac
port-profile default max-ports 32

system storage-loss log time 30

interface mgmt0
  ip address 10.2.71.65/16

interface control0
  no snmp trap link-status
  ip address 70.1.0.75/24
line console
line vty
boot kickstart bootflash:/nexus-1000v-kickstart.5.2.1.VSG1.4.0.1.bin sup-1
boot system bootflash:/nexus-1000v.5.2.1.VSG1.4.0.1.bin sup-1
boot kickstart bootflash:/nexus-1000v-kickstart.5.2.1.VSG1.4.0.1.bin sup-2
boot system bootflash:/nexus-1000v.5.2.1.VSG1.4.0.1.bin sup-2
ip route 70.1.0.0/24 90.1.0.27
ip route 90.1.0.0/24 90.1.0.27
limit-resource erspan-flow-id minimum 0 maximum 0
svs-domain
  domain id 202
  control vlan 1
  packet vlan 1
  svs mode L3 interface mgmt0
  switch-guid b1d6dac9-4a18-4f9f-8f6f-7552675a5c46

security-profile SP1@root/T1
  policy Ps-large@root/T1
  custom-attribute vnsporg "root/t1"

security-profile SP2-clone@root/T1
  policy PS2-1@root/T1
  custom-attribute vnsporg "root/t1"

security-profile SP2@root/T1
  policy PS2-1@root/T1
  custom-attribute vnsporg "root/t1"
security-profile default@root
  policy default@root
  custom-attribute vnsporg "root"
zone 123 cond-match-criteria: match-all
zone DMZ cond-match-criteria: match-all
zone vzone2@root/T1 cond-match-criteria: match-all
  condition 10 net.ip-address neq 20.1.0.7
zone web1 cond-match-criteria: match-all
zone zone1@root/T1 cond-match-criteria: match-all
  condition 10 net.ip-address eq 0.0.0.0
rule P-123456---large-name-12345-larg/all-p@root/T1 cond-match-criteria: match-a
ll
  action permit
  action log
rule P-123456---large-name-12345-larg/ftp-permit@root/T1 cond-match-criteria: ma
tch-all
  service/protocol-attribute
  condition 10 net.protocol eq 6
  action permit
  action log
rule P-123456---large-name-12345-larg/large-name-rule-large-name-rule@root/T1 co
nd-match-criteria: match-all
  service/protocol-attribute

```

```

        condition 11 net.protocol eq 1
        src-port-attribute
        condition 10 src.net.port eq 11
        action permit
        action log
rule P-123456---large-name-12345-larg/permit-all@root/T1 cond-match-criteria: ma
tch-all
        action permit
        action log
rule P-123456---large-name-12345-larg/r-1@root/T1 cond-match-criteria: match-all
        src-attributes
        condition 10 src.zone.name eq vzone2@root/T1
        action permit
rule P-123456---large-name-12345-larg/tftp-permit@root/T1 cond-match-criteria: m
atch-all
        service/protocol-attribute
        condition 10 net.protocol eq 17
        action permit
        action log
rule P1/R1@root/T1 cond-match-criteria: match-all
        action permit
rule p-rst/R-rst@root/T1 cond-match-criteria: match-all
        src-attributes
        condition 10 src.zone.name eq zone1@root/T1
        action reset
        action log
Policy P1
Policy P1@root
Policy PS2-1@root/T1
        rule p-rst/R-rst@root/T1 order 101
Policy Ps-large@root/T1
        rule P-123456---large-name-12345-larg/r-1@root/T1 order 101
        rule P-123456---large-name-12345-larg/all-p@root/T1 order 201
        rule P-123456---large-name-12345-larg/large-name-rule-large-name-rule@root/T1
order 301
        rule P-123456---large-name-12345-larg/ftp-permit@root/T1 order 401
        rule P-123456---large-name-12345-larg/tftp-permit@root/T1 order 501
        rule P-123456---large-name-12345-larg/permit-all@root/T1 order 601
        rule P1/R1@root/T1 order 702
Policy default@root
Policy p2
service firewall logging enable
nsc-policy-agent
        registration-ip 10.2.71.64
        shared-secret *****
policy-agent-image bootflash:/vnmc-vsghpa.2.1.1e.bin
        log-level crit
logging logfile messages 7 size 4096
logging server 10.2.71.64 7 facility local0
logging server 10.2.71.69 4 facility user

```

Related Commands

Command	Description
show startup-config	Displays the startup configuration.

show service-path connection

To display service path connection information, use the **show service-path connection** command.

show service-path connection [**svs-domain-id** *domain-id* [**module** *module-number*]]

Syntax Description	svs-domain-id	(Optional) Displays the SVS domain.
	<i>domain-id</i>	Domain identification number. The range is from 1 to 4095.
	module	(Optional) Displays the module.
	<i>module-number</i>	Module number. The range is from 3 to 66.

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 You can use the following operators with the **show service-path connection** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.



Note

The **show service-path connection command** might not display inspect-rsh actions for remote shell traffic. This issue affects the display only and does not disrupt the traffic policy decisions.

Examples This example shows how to display service path connections:

```
vsg# show service-path connection
Flags:
P - policy at src           p - policy at dst
O - conn offloaded to ser-path at src  o - conn offloaded to ser-path at dst
S - seen syn from src      s - seen syn from dst
A - seen ack for syn/fin from src      a - seen ack for syn/fin from dst
F - seen fin from src       f - seen fin from dst
```



```
R - seen rst from src          r - seen rst from dst
E - tcp conn established (SasA done)  T - tcp conn torn down (FafA done)

#SVS Domain 3720  Module  5
Proto SrcIP[:Port]      DstIP[:Port]      VLAN Action      Flags
tcp  172.31.2.206:2677  172.31.2.106:80   PpOoSas
```

show service-path statistics

To display service path statistics, use the **show service-path statistics** command.

show service-path statistics [**svs-domain-id** *domain-id* [**module** *module-number*]]

Syntax Description	svs-domain-id	(Optional) Displays the SVS domain.
	<i>domain-id</i>	Domain identification number. The range is from 1 to 4095.
	module	(Optional) Displays the module.
	<i>module-number</i>	Module number. The range is from 3 to 66.

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 You can use the following operators with the **show service-path statistics** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display service path statistics:

```
vsg# show service-path statistics
Input Packet          9130015  Output Packet          879012
Active Flows           17      Active Connections     12
Flow Create           36696   Flow Destroy           36679
Input Packet Drop      0      Output Packet Drop     0
SP Packet Drop         0      Corrupted Packet       0
Input mode             Signal   Input mode change fail 0
Input signal mode      1      Input interrupt mode   0
PE Corrupted Packet    0      FTP Corrupted Packet   0
RSH Corrupted Packet   0      TFTP Corrupted Packet  0
Buffer Free Fail       0
Vpath Frag Packet     8249047 Vpath Inst Frag        0
```

IPV4 Frag Packet	850338	IPV4 Inst Frag	0
Aged Vpath Frag Packet	0	Vpath Frag Packet Drop	0
Aged IPV4 Frag Packet	10	IPV4 Frag Packet Drop	0
Bad Vpath Frag	0	Bad IPV4 Frag	0
Vpath Frag/Package Exceed	0	IPV4 Frag/Package Exceed	0
Total Frag Inst Exceed	0		
Non-Vpath Packet	0	Vpath Ver Mismatch Packet	0
SVS Domain 15 Module 3			
Input Packet	20957	Output Packet	19328
Flow Create	28856	Flow Destroy	28848
Packet Drop	0		
SVS Domain 15 Module 4			
Input Packet	9109058	Output Packet	859684
Flow Create	7840	Flow Destroy	7831
Packet Drop	0		

show snmp

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

```
show snmp [community | context | engineID | group | host | internal | sessions | source-interface
          | trap | user]
```

Syntax	Description
community	(Optional) Displays SNMP community strings.
context	(Optional) Displays SNMP context mapping entries.
engineID	(Optional) Displays the SNMP engine ID.
group	(Optional) Displays SNMP groups.
host	(Optional) Displays SNMP hosts.
internal	(Optional) Displays internal SNMP information.
sessions	(Optional) Displays SNMP sessions.
source-interface	(Optional) Displays the notifications source interface.
trap	(Optional) Displays SNMP traps.
user	(Optional) Displays SNMPv3 users.

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.

Usage Guidelines You can use the following operators with the **show snmp** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display SNMP users:

```
vsg# show snmp user
```

```

SNMP USERS
-----
User                               Auth  Priv(enforce) Groups
-----
NOTIFICATION TARGET USERS (configured for sending V3 Inform)
-----
User                               Auth  Priv
-----
admin                               md5   des
(EngineID 128:0:0:9:3:0:0:0:0:0)

vsnbetauser                         md5   des
(EngineID 128:0:0:9:3:0:0:0:0:0)

```

Related Commands

Command	Description
snmp-server	Configures the SNMP server.

show sockets

To display socket information, use the **show sockets** command.

```
show sockets { client | connection | internal | statistics | tcp }
```

Syntax Description		
	client	Displays client socket information.
	connection	Displays socket connections information.
	internal	Displays internal socket information.
	statistics	Displays socket statistics.
	tcp	Displays TCP 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.

Usage Guidelines You can use the following operators with the **show sockets** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display socket statistics:

```
vsg# show sockets statistics
TCP Received:
    43556 packets total
    0 checksum error, 0 bad offset, 0 too short, 0 MD5 error
    33557 packets (1428824 bytes) in sequence
    435 duplicate packets (8296 bytes)
    0 partially dup packets (0 bytes)
    141 out-of-order packets (7736 bytes)
    0 packets (0 bytes) with data after window
    1 packets after close
    0 window probe packets, 0 window update packets
```

```

470 duplicate ack packets, 0 ack packets with unsent data
17669 ack packets (1759693 bytes)
TCP Sent:
20950 total, 0 urgent packets
20 control packets
20057 data packets (1759592 bytes)
5 data packets (736 bytes) retransmitted
809 ack only packets
0 window probe packets, 59 window update packets
TCP:
0 connections initiated, 129 connections accepted, 129 connections established
129 connections closed (including 107 dropped, 0 embryonic dropped)
4 total rxmt timeout, 0 connections dropped in rxmt timeout
40 keepalive timeout, 40 keepalive probe, 0 connections dropped in keepalive

```

Related Commands

Command	Description
show interface	Displays information about interfaces.

show ssh

To display secure shell (SSH) information, use the **show ssh** command.

```
show ssh {key | server}
```

Syntax Description	key	Displays the SSH keys.
	server	Displays the status of SSH on the server.

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.

Usage Guidelines You can use the following operators with the **show ssh** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the SSH keys:

```
vsg# show ssh key
*****
rsa Keys generated:Fri May 8 16:49:02 2013

ssh-rsa AAAAB3NzaC1yc2EAAAABIwAAAQEAtL6+T2oK41T1ed1Xus/eY6FChVxGdDA1T9B3pC06MWst
6+Wh4Sw3Ibpoe2uIuZE9qZj1NKLmWkReu1o1XLCJ1GG3QjkVUA2CMLYP6o/+fUoMZIPSyQFQk+3JwTFu
UR7uaa6OkATAr35unSnaHPKkYyv7C2S+I/H2nilY+Gbnv9D2tjjsFUjOMIeIa8w5EdedMSnxOYg9ynm
9rV+Jq148mvs1AKo23eSkzJT2grZu6z3d8DboiEHvrkPR/8Dwum9BXX7pM9p4813Dae51RuW92H/wRqs
v0u6Cyex6c6uE2f3jo4yU4tOMTCbyu2O+lXz/AsmM+gUZ1CvXrHhjgHpqw==

bitcount:2048
fingerprint:
1d:1f:75:3c:6b:41:32:c8:0a:87:40:56:10:cb:2b:e9
*****
could not retrieve dsa key information
```

Related Commands

Command	Description
show telnet	Displays the Telnet server configuration.

show startup-config

To display startup configurations, use the **show startup-config** command.

```
show startup-config [aaa | admgr | arp | bfd | cdp | dhcp | eem | exclude | exclude-provision |
expand-port-profile | glbp | icmpv6 | interface | ip | l3vm | log | netflow | network | ntp |
security | snmp | vdc-all | vrf | vrrp | vshd]
```

Syntax	Description
aaa	(Optional) Displays the authentication, authorization, and accounting (AAA) configuration.
admgr	(Optional) Displays the admgr information.
arp	(Optional) Displays Address Resolution Protocol (ARP) information.
bfd	(Optional) Displays the startup config for BFD.
cdp	(Optional) Displays the Cisco Discovery Protocol (CDP) configuration.
dhcp	(Optional) Displays the DHCP snoop configurations.
eem	(Optional) Displays the event manager startup configuration.
exclude	(Optional) Exclude the startup configuration of specified features.
exclude-provision	(Optional) Hide configuration for the offline pre-provisioned interfaces.
expand-port-profile	(Optional) Displays the port profile.
glbp	(Optional) Displays the GLBP startup configuration
icmpv6	(Optional) Displays Internet Control Message Protocol Version 6 (ICMPv6) information.
interface	(Optional) Displays interface configurations.
ip	(Optional) Displays IP information.
l3vm	(Optional) Displays Layer 3 Virtual Machine information.
log	(Optional) Displays the execution log of the latest ASCII startup configuration.
netflow	(Optional) Displays the NetFlow configuration.
network	(Optional) Displays the network information.
ntp	(Optional) Displays Network Time Protocol (NTP) information.
security	(Optional) Displays the security configuration.
snmp	(Optional) Displays the SNMP configuration.
vdc-all	(Optional) Displays the virtual device context (VDC) configuration.
vrf	(Optional) Displays the VRF information.
vrrp	(Optional) Displays the VRRP startup configuration.
vshd	(Optional) Displays the running configuration for VSHD.

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.

Usage Guidelines

You can use the following operators with the **show startup-config** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display the startup configuration:

```
vsg# show startup-config
Sap 106 returned failure code:0x80480002

!Command: show startup-config
!Time: Wed Feb 23 12:52:55 2013
!Startup config saved at: Tue Apr 30 19:23:55 2013

version 5.2.1VSG1(4.1)
ip domain-lookup
ip domain-lookup
switchname VSG129-2
snmp-server user admin auth md5 0x49381b1f90fcb52a70b55a0bbf05d032 priv 0x49381b1f90fcb52a70b55a0bbf05d032 localizedkey engineID 128:0:0:9:3:0:0:0:0:0
snmp-server user vsnbetauser auth md5 0x272e8099cab7365fd1649d351b953884 priv 0x272e8099cab7365fd1649d351b953884 localizedkey engineID 128:0:0:9:3:0:0:0:0:0

vrf context management
 ip route 0.0.0.0/0 10.193.72.1
vlan 1
port-channel load-balance ethernet source-mac
port-profile default max-ports 32

vdc VSG129-2 id 1
 limit-resource vlan minimum 16 maximum 2049
 limit-resource monitor-session minimum 0 maximum 2
 limit-resource vrf minimum 16 maximum 8192
 limit-resource port-channel minimum 0 maximum 768
 limit-resource u4route-mem minimum 32 maximum 32
 limit-resource u6route-mem minimum 16 maximum 16
 limit-resource m4route-mem minimum 58 maximum 58
 limit-resource m6route-mem minimum 8 maximum 8

interface mgmt0
 ip address 10.193.73.138/21
```

■ **show startup-config**

```

interface data0
  ip address 192.168.129.2/24
  ip address 192.168.129.2/24

interface data0
  ip address 192.168.129.2/24
  ip address 192.168.129.2/24
line console
boot kickstart bootflash:/ks.bin sup-1
boot system bootflash:/sys.bin sup-1
boot kickstart bootflash:/ks.bin sup-2
boot system bootflash:/sys.bin sup-2
  ha-pair id 1292

security-profile sp1
  policy p1
rule r1
  action 1 permit
policy p1
  rule r1 order 10
nsc-policy-agent
  registration-ip 0.0.0.0
  shared-secret *****
  log-level

```

Related Commands

Command	Description
show running-config	Displays the running configuration.

show system

To display system information, use the **show system** command.

```
show system {clis | cores | error-id | exception-info | inband | internal | pss | redundancy |
resources | standby | uptime | vlan }
```

Syntax Description	clis	Displays the command-line interface (CLI) server.
	cores	Displays the core transfer option.
	error-id	Displays the descriptions for system errors.
	exception-info	Displays the last exception log information.
	inband	Displays the inband commands.
	internal	Displays the commands for internal use.
	pss	Displays the most recent PSS shrink status.
	redundancy	Displays the redundancy status.
	resources	Displays the system resources.
	standby	Displays the system standby manual boot option.
	uptime	Displays how long the system has been up and running.
	vlan	Displays the VLAN status.

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 You can use the following operators with the **show system** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples

This example shows how to display system resources:

```
vsg# show system resources
Load average: 1 minute: 0.22 5 minutes: 0.28 15 minutes: 0.12
Processes : 245 total, 2 running
CPU states : 0.0% user, 0.0% kernel, 100.0% idle
Memory usage: 1944668K total, 1041116K used, 903552K free
              71456K buffers, 398416K cache
```

Related Commands

Command	Description
show hardware	Displays hardware information.

show tech-support

To display information about technical support, use the **show tech-support** command.

```
show tech-support [adjmgr | arp | bootvar | bridge-domain | brief | cert-enroll | cli | clis |
  commands | details | dhcp | eem | ethpm | ethport | ha | icmpv6 | im | include-time internal
  | ip | ipv6 | l3vm | lACP | nPAcl | ntp | pktmgr | port | port-channel | routing | sal | smm | snmp
  | sockets | span | sup-filesys | svS | sysmgr | vVlan | xml]
```

Syntax Description

adjmgr	(Optional) Displays adjacency manager information.
arp	(Optional) Displays Address Resolution Protocol (ARP) information.
bootvar	(Optional) Displays detailed information about boot variables.
bridge-domain	(Optional) Displays information for segmentaion troubleshooting.
brief	(Optional) Displays a system summary.
cert-enroll	(Optional) Displays certificate information.
cli	(Optional) Displays information about the parser.
clis	(Optional) Displays information about the command-line interface (CLI) server.
command	(Optional) Displays commands executed as part of show tech-support commands.
details	(Optional) Displays detailed information about troubleshooting.
dhcp	(Optional) Displays detailed information about Dynamic Host Configuration Protocol (DHCP).
eem	(Optional) Displays detailed information about EPP.
ethpm	(Optional) Displays detailed information for ETHPM troubleshooting.
ethport	(Optional) Displays detailed information about the Ethernet port.
ha	(Optional) Displays detailed information about high availability (HA).
icmpv6	(Optional) Displays information about ICMPv6.
im	(Optional) Displays detailed information about IM.
include-time	(Optional) Displays the time taken to gather technical support information.
internal	(Optional) Displays internal information for troubleshooting
ip	(Optional) Displays IP information.
ipv6	(Optional) Displays IPv6 information.
l3vm	(Optional) Display virtual routing and forwarding (VRF) information.
lACP	(Optional) Displays detailed information for LACP component.
nPAcl	(Optional) Displays information about NPACL.
ntp	(Optional) Displays information about the Network Time Protocol (NTP).
pktmgr	(Optional) Displays packet manager information.
port	(Optional) Displays port manager information.
port-channel	(Optional) Displays port-channel information.
routing	(Optional) Displays information about routing.
sal	(Optional) Displays SAL tech-support information.
smm	(Optional) Displays shared memory information.

show tech-support

snmp	(Optional) Displays information related for SNMP.
sockets	(Optional) Displays information about sockets.
span	(Optional) Displays detailed information for span troubleshooting.
supfile-sys	(Optional) Displays File-sys related issue.
svs	(Optional) Displays technical support information for SVS.
sysmgr	(Optional) Displays information about system manager.
vvlan	(Optional) Displays detailed information for Voice VLAN troubleshooting.
xml	(Optional) Displays information about 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.

Usage Guidelines

You can use the following operators with the **show tech-support** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

When you execute a show command that displays a long list of data, you can press **Ctrl-c** at any time to exit that list.

Examples

This example shows how to display HA information:

```
VSG129-2# show tech-support ha
`show system internal sysmgr event-history msgs`
1) Event:E_MTS_RX, length:60, at 12198 usecs after Thu Feb 24 11:38:48 2013
   [REQ] Opc:MTS_OPC_SDWRAP_DEBUG_DUMP(1530), Id:0X02ECF618, Ret:SUCCESS
   Src:0x00000101/39469, Dst:0x00000101/3, Flags:None
   HA_SEQNO:0X00000000, RRtoken:0x02ECF618, Sync:UNKNOWN, Payloadsize:216
   Payload:
   0x0000: 01 00 2f 74 6d 70 2f 64 62 67 64 75 6d 70 31 32

2) Event:E_MTS_RX, length:44, at 952704 usecs after Thu Feb 24 11:38:47 2013
   [REQ] Opc:MTS_OPC_SYSMGR_ENNVAR_NON_SYSMGR_SRV_GET(2653), Id:0X02ECF601, Ret
   :SUCCESS
```



```

Src:0x00000101/39467, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF601, Sync:UNKNOWN, Payloadsize:0

3) Event:E_MTS_RX, length:44, at 504521 usecs after Thu Feb 24 11:38:39 2013
[REQ] Opc:MTS_OPC_SYSMGR_ENNVAR_NON_SYSMGR_SRV_GET(2653), Id:0X02ECF494, Ret:SUCCESS
Src:0x00000101/39441, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF494, Sync:UNKNOWN, Payloadsize:0

4) Event:E_MTS_RX, length:60, at 824041 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_INTERNAL_STATE(1386), Id:0X02ECF0FB, Ret:SUCCESS
Src:0x00000101/39438, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0FB, Sync:UNKNOWN, Payloadsize:624
Payload:
0x0000: 00 00 00 01 00 00 02 00 00 00 00 00 00 00 00 00

5) Event:E_MTS_RX, length:60, at 823997 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_REDUNDANCY_STATUS(2499), Id:0X02ECF0F9, Ret:SUCCESS
Src:0x00000101/39438, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0F9, Sync:UNKNOWN, Payloadsize:112
Payload:
0x0000: 00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00

6) Event:E_MTS_RX, length:44, at 823918 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_SCOPE_DONE(2476), Id:0X02ECF0F7, Ret:SUCCESS
Src:0x00000101/39438, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0F7, Sync:UNKNOWN, Payloadsize:0

7) Event:E_MTS_RX, length:60, at 819079 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_INTERNAL_STATE(1386), Id:0X02ECF0F5, Ret:SUCCESS
Src:0x00000101/39437, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0F5, Sync:UNKNOWN, Payloadsize:624
Payload:
0x0000: 00 00 00 01 00 00 02 00 00 00 00 00 00 00 00 00

8) Event:E_MTS_RX, length:60, at 819034 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_REDUNDANCY_STATUS(2499), Id:0X02ECF0F3, Ret:SUCCESS
Src:0x00000101/39437, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0F3, Sync:UNKNOWN, Payloadsize:112
Payload:
0x0000: 00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00

9) Event:E_MTS_RX, length:44, at 818960 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_SCOPE_DONE(2476), Id:0X02ECF0F1, Ret:SUCCESS
Src:0x00000101/39437, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0F1, Sync:UNKNOWN, Payloadsize:0

10) Event:E_MTS_RX, length:60, at 814417 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_INTERNAL_STATE(1386), Id:0X02ECF0EF, Ret:SUCCESS
Src:0x00000101/39436, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0EF, Sync:UNKNOWN, Payloadsize:624
Payload:
0x0000: 00 00 00 01 00 00 02 00 00 00 00 00 00 00 00 00

11) Event:E_MTS_RX, length:60, at 814364 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_REDUNDANCY_STATUS(2499), Id:0X02ECF0ED, Ret:SUCCESS
Src:0x00000101/39436, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0ED, Sync:UNKNOWN, Payloadsize:112

```

```

Payload:
0x0000:  00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00

12) Event:E_MTS_RX, length:44, at 814283 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_SCOPE_DONE(2476), Id:0X02ECF0EB, Ret:SUCCESS
Src:0x00000101/39436, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0EB, Sync:UNKNOWN, Payloadsize:0

13) Event:E_MTS_RX, length:44, at 800624 usecs after Thu Feb 24 11:38:18 2013
[REQ] Opc:MTS_OPC_SYSMGR_ENNVAR_NON_SYSMGR_SRV_GET(2653), Id:0X02ECF0D3, Ret
:SUCCESS
Src:0x00000101/39435, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECF0D3, Sync:UNKNOWN, Payloadsize:0

14) Event:E_MTS_RX, length:48, at 37941 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAC3, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA4B, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

15) Event:E_MTS_RX, length:48, at 37931 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAC2, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA4A, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

16) Event:E_MTS_RX, length:48, at 37921 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAC1, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA49, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

17) Event:E_MTS_RX, length:48, at 37910 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAC0, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA48, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

18) Event:E_MTS_RX, length:48, at 37900 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABF, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA47, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

19) Event:E_MTS_RX, length:48, at 37890 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABE, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA46, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

20) Event:E_MTS_RX, length:48, at 37880 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABD, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA45, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000:  00 00 00 00

21) Event:E_MTS_RX, length:48, at 37870 usecs after Thu Feb 24 11:37:00 2013

```

```

[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABC, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA44, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

22) Event:E_MTS_RX, length:48, at 37860 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABB, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA43, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

23) Event:E_MTS_RX, length:48, at 37850 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABA, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA42, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

24) Event:E_MTS_RX, length:48, at 37840 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAB9, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA41, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

25) Event:E_MTS_RX, length:48, at 37830 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAB8, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA40, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

26) Event:E_MTS_RX, length:48, at 37820 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAB7, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA3F, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

27) Event:E_MTS_RX, length:48, at 37808 usecs after Thu Feb 24 11:37:00 2013
[RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEAB6, Ret:SUCCESS
Src:0x00000101/342, Dst:0x00000101/3, Flags:None
HA_SEQNO:0X00000000, RRtoken:0x02ECEA3E, Sync:UNKNOWN, Payloadsize:4
Payload:
0x0000: 00 00 00 00

```

Related Commands

Command	Description
show debug	Displays debug flags.

show telnet server

To display the status of Telnet services, use the **show telnet server** command.

show telnet server

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.

Usage Guidelines You can use the following operators with the **show telnet server** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the status of Telnet services:

```
vsg# show telnet server
telnet service not enabled
vsg#
```

Related Commands	Command	Description
	show http	Displays the status of HTTP services.

show terminal

To display information about the terminal, use the **show terminal** command.

show terminal [internal]

Syntax Description	internal	(Optional) Displays internal terminal 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.

Usage Guidelines	<p>You can use the following operators with the show terminal command:</p> <ul style="list-style-type: none"> • >—Redirects the output to a file. • >>—Redirects the output to a file in append mode. • —Pipes the command output to a filter.
------------------	--

Examples	This example shows how to display information about the terminal:
----------	---

```
VSG129-2# show terminal internal info
Process info:
Name: vsh
State: R (running)
SleepAVG: 88%
Tgid: 4157
Pid: 4157
PPid: 4156
TracerPid: 0
Uid: 2002 2002 2002 2002
Gid: 503 503 503 503
FDSize: 256
Groups: 503
VmSize: 31080 kB
VmLck: 0 kB
VmRSS: 9208 kB
VmData: 1140 kB
```

■ show terminal

```

VmStk:          84 kB
VmExe:          44 kB
VmLib:         13664 kB
VmPTE:          48 kB
Threads:         1
SigPnd: 0000000000000000
ShdPnd: 0000000000000000
SigBlk: 0000001000000000
SigIgn: 0000000000300004
SigCgt: 0000000180007002
CapInh: 0000000000000000
CapPrm: 0000000000000000
CapEff: 0000000000000000

```

```

Memory limits:
core file size      (blocks, -c) 146484
data seg size      (kbytes, -d) unlimited
file size          (blocks, -f) unlimited
max locked memory  (kbytes, -l) unlimited
max memory size    (kbytes, -m) unlimited
open files         (-n) 1024
pipe size          (512 bytes, -p) 8
stack size         (kbytes, -s) 8192
cpu time           (seconds, -t) unlimited
max user processes (-u) unlimited
virtual memory     (kbytes, -v) 204800

```

Related Commands

Command	Description
show processes	Displays process information.

show user-account

To display information about user accounts, use the **show user-account** command.

```
show user-account [user-account-name]
```

Syntax Description	<i>user-account-name</i> (Optional) User account name.
---------------------------	--

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.

Usage Guidelines	<p>You can use the following operators with the show user-account command:</p> <ul style="list-style-type: none"> • >—Redirects the output to a file. • >>—Redirects the output to a file in append mode. • —Pipes the command output to a filter.
-------------------------	--

Examples	<p>This example shows how to display user accounts:</p> <pre>vsg# show user-account user:adminbackup this user account has no expiry date roles: user:admin this user account has no expiry date roles:network-admin user:vsnbetauser this user account has no expiry date roles:network-admin</pre>
-----------------	---

Related Commands	Command	Description
	show users	Displays current users.

show users

To display users, use the **show users** command.

show users

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.

Usage Guidelines You can use the following operators with the **show users** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display users:

```
vsg# show users
NAME      LINE      TIME          IDLE          PID COMMENT
admin     pts/0     Jan 21 17:19  old          3021 (171.69.17.61) session=ssh
admin     pts/29    Feb 23 11:13  .            4157 (10.21.145.11) session = ssh *
```

Related Commands	Command	Description
	show user-account	Displays information about user accounts.

show version

To display the software version, use the **show version** command.

show version [**image** | **internal**]

Syntax Description	image	(Optional) Displays software image information.
	internal	(Optional) Displays internal commands.

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 You can use the following operators with the **show version** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display software build information:

```
vsg# show version internal build-identifier
```

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

show nsc-pa

To display the Prime Network Services Controller (Prime NSC) policy agent, use the **show nsc-pa** command.

show nsc-pa [status | tech-support]

Syntax Description	status	(Optional) Displays the policy agent status.
	tech-support	(Optional) Displays technical support 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.

Usage Guidelines You can use the following operators with the **show nsc-pa** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display the policy agent status:

```
vsg# show nsc-pa status
NSC Policy-Agent status is - Not Installed
```

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

show vsg dvport

To display information about a Cisco VSG DV port, use the **show vsg dvport** command.

```
show vsg dvport [port-name]
```

Syntax Description	<i>port-name</i> (Optional) DV port 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.

Usage Guidelines	<p>You can use the following operators with the show vsg dvport command:</p> <ul style="list-style-type: none"> >—Redirects the output to a file. >>—Redirects the output to a file in append mode. —Pipes the command output to a filter.
-------------------------	--

Examples	This example shows how to display information about a DV port:
-----------------	--

```
vsg# show vsg dvport
DV Port      : 576::bcaa1c50-8747-8d08-fe7e-a9aa8924bf8e
Security Profile : spcustom
VM uuid      : 421c5ae4-51c3-5dd9-60fa-a50cb04ed0ea
Port Profile  : vm_data
IP Addresses :
    100.1.1.20
    100.1.1.10
```

Related Commands	Command	Description
	show vsg ip-binding	Displays information about IP bindings.

show vsg ip-binding

To display a list of Virtual Machine (VM) IP addresses and associated virtual network security profile (VNSP) and policy sets, use the **show vsg ip-binding** command.

show vsg ip-binding

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

Usage Guidelines You can use the following operators with the **show vsg ip-binding** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display a list of VM IP addresses:

```
vsg# show vsg ip-binding
```

```
-----
  VM IP address      Security-Profile Name      Policy Name
-----
  100.1.1.20         spcustom                   policy_one
  100.1.1.10         sp_new                     policy_one
```

Related Commands	Command	Description
	show vsg security-profile	Displays information about security profiles.

show vsg security-profile

To display information about security profiles, use the **show vsg security-profile** command.

show vsg security-profile [*vnsn-name* | **detail** | **table**]

Syntax Description	
<i>vnsn-name</i>	(Optional) Virtual network security profile (VNSP) name.
detail	(Optional) Displays more details about the Cisco VSG security profile.
table	(Optional) Displays security profile 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.

Usage Guidelines You can use the following operators with the **show vsg security-profile** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

The detail version of the **show vsg security-profile** command includes the names of the Virtual Machines (VMs) that are using the security profile in addition to the information about the security profile. A VNSP name can be specified to get details of a specific security profile.

Examples This example shows how to display detailed information about the security profile sp_deny@root:

```
vsg# show vsg security-profile sp_deny@root detail
VNSP                : sp_deny@root
VNSP id             : 5
Policy Name         : ps_deny@root
Policy id           : 3
Custom attributes  :
  Name              : vnspporg
  Value             : root
  Name              : profile1
  Value             : eng
```

■ show vsg security-profile

```
Virtual Machines:  
sg-pg-vm206  
sg-pg-redhat
```

Related Commands

Command	Description
show policy stats	Displays policy statistics.

show vsg vm

To display information about a Virtual Machine (VM), use the **show vsg vm** command.

show vsg vm

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.

Usage Guidelines You can use the following operators with the **show vsg vm** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display information for the Cisco VSG VM:

```
vsn22# show vsg vm
VM uuid : c42067b5-4533-43c5-8f2f-a3766d4cff4e
VM attributes :
name : vm-11
os-fullname : windows server 2012 r2 datacenter
os-hostname : windows123
```

```
Zone(s) :
```

■ show vsg vm

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

show vsg vm name

To display the name information about a Virtual Machine (VM), use the **show vsg vm name** command.

show vsg vm name *name*

Syntax Description	<i>name</i>	Name or partial name of a VM in your Cisco VSG network.
---------------------------	-------------	---

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

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

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

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

Usage Guidelines	You can use the following operators with the show vsg vm name command:
-------------------------	---

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

This command displays information for one or more Virtual machines (VMs). The VMs name should be specified as a parameter and can be a prefix (first few characters) or the entire name. The information for the VM includes details of each DV port used by the VM and zones that the VM belongs to.

Examples	This example shows how to display information for the Cisco VSG VM with the name vm-12:
-----------------	---

```
vsg# show vsg vm name vm-12
VM uuid : 9452c024-7e5f-4b4d-a3e6-6db5a01ec987
VM attributes :
name : vm-12
os-fullname : windows server 2012 r2 datacenter
os-hostname : windows123

DV Port(s) :
DV Port : 9452c024-7e5f-4b4d-a3e6-6db5a01ec987--2575106b-0463-4be5
-aec2-0c58f5740e1c::542e5b16-694f-4bcb-ba2e-f7cb484cfc9b
Security Profile : default@root
Port Profile : pp-vm-vns2
IP Addresses :
```

■ show vsg vm name

80.1.0.53

Zone(s) :

Related Commands

Command	Description
show vsg	Displays Cisco VSG information.

show vsg vm uuid

To display the Cisco VSG virtual machine UUID, use the **show vsg vm uuid** command.

```
show vsg vm uuid uuid
```

Syntax Description	<i>uuid</i>	Designates the name of the UUID.
---------------------------	-------------	----------------------------------

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

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

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

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

Usage Guidelines	This command requires the VM UUID as a parameter. Information for the specified VM is displayed.
-------------------------	--

Examples This example shows how to display the Cisco VSG UUID information:

```
vsg# show vsg vm uuid 9452c024-7e5f-4b4d-a3e6-6db5a01ec987
VM uuid : 9452c024-7e5f-4b4d-a3e6-6db5a01ec987
VM attributes :
name : vm-12
os-fullname : windows server 2012 r2 datacenter
os-hostname : windows123

DV Port(s) :
DV Port : 9452c024-7e5f-4b4d-a3e6-6db5a01ec987--2575106b-0463-4be5
-aec2-0c58f5740e1c::542e5b16-694f-4bcb-ba2e-f7cb484cfc9b
Security Profile : default@root
Port Profile : pp-vm-vns2
IP Addresses :
80.1.0.53

Zone(s) :
```

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

show vsg zone

To display the Cisco VSG zones, use the **show vsg zone** command.

show vsg zone

Syntax Description This command has no keywords or arguments.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to display Cisco VSG zones:

```
vsg(config-nsc-policy-agent)# show vsg zone
Zone : vzone2@root/T1
Virtual Machines :
-----
Zone : zone1@root/T1
Virtual Machines :
-----
```

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

show xml server

To display XML server information, use the **show xml server** command.

show xml server [**internal** | **logging** | **status**]

Syntax Description	internal	(Optional) Displays the commands for internal use.
	logging	(Optional) Displays the logging configuration and the contents of the log file.
	status	(Optional) Displays XML agent 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.

Usage Guidelines You can use the following operators with the **show xml server** command:

- >—Redirects the output to a file.
- >>—Redirects the output to a file in append mode.
- |—Pipes the command output to a filter.

Examples This example shows how to display XML server information:

```
vsg# show xml server status
operational status is enabled
maximum session configured is 8
```

Related Commands	Command	Description
	show http-server	Displays the HTTP server configuration.

■ show xml server



C

capability l3-vservice command [1-2](#)
cd command [2-8, 2-109](#)
cdp advertise command [2-9](#)
clear cdp command [2-13](#)
clear cli history command [2-14](#)
clear cores command [2-15](#)
clear debug-logfile command [2-16](#)
clear line command [2-33](#)
clear logging logfile command [2-34](#)
clear ntp statistics command [2-35](#)
clear ssh hosts command [2-69](#)
clear user command [2-72](#)
clear vsn connection command [1-3](#)
clock set command [2-75, 2-117](#)

D

debug logfile command [2-100](#)
debug logging command [2-102](#)
dir command [2-104](#)
Documentation Feedback [i-xii](#)

E

echo command [2-105, 2-108](#)

F

find command [2-112](#)

G

gunzip command [2-113](#)

M

media command [2-124](#)

P

password strength-check command [2-127](#)
ping vsn command [1-8](#)
port-profile command [1-13](#)
pwd command [2-130](#)

R

reload command [2-131](#)
reload module command [2-132](#)
rmdir command [2-133](#)
run-script command [2-137](#)

S

send command [2-138](#)
setup command [2-139](#)
show aaa command [3-1](#)
show accounting command [3-6](#)
show ac-driver command [3-4](#)
show banner command [3-8](#)
show boot command [3-9](#)
show cdp command [3-11](#)
show cli command [3-13](#)

- show clock command [3-15](#)
 - show copyright command [3-16](#)
 - show cores command [3-18](#)
 - show debug command [3-19](#)
 - show debug-filter command [3-21](#)
 - show event-log command [3-22](#)
 - show event manager internal command [3-23](#)
 - show feature command [3-26](#)
 - show file command [3-28](#)
 - show hardware command [3-29](#)
 - show hostname command [3-31](#)
 - show hosts command [3-32](#)
 - show http-server command [3-33](#)
 - show incompatibility command [3-34](#)
 - show inspect ftp statistics command [3-35](#)
 - show install all command [3-36](#)
 - show interface command [3-37](#)
 - show ip command [3-39](#)
 - show ipv6 command [3-41](#)
 - show kernel internal command [3-43](#)
 - show line command [3-45](#)
 - show logging command [3-47](#)
 - show nsc-pa [3-94](#)
 - show nsc-pa status [1-24](#)
 - show ntp command [3-50](#)
 - show password command [3-52](#)
 - show policy-engine command [3-53](#)
 - show processes command [3-54](#)
 - show redundancy status command [3-58](#)
 - show resource command [3-60](#)
 - show role command [3-62](#)
 - show running-config command [3-64, 3-78](#)
 - show service-path connection command [3-68](#)
 - show service-path statistics command [3-70](#)
 - show snmp command [3-72](#)
 - show sockets command [3-74](#)
 - show ssh command [3-76](#)
 - show system command [3-81](#)
 - show tech-support command [3-83](#)
 - show telnet server command [3-88](#)
 - show terminal command [3-89](#)
 - show user-account command [3-91](#)
 - show users command [3-92](#)
 - show version command [3-93](#)
 - show vsn brief command [1-22, 1-25, 1-36, 1-38](#)
 - show vsn connection command [1-27](#)
 - show vsn detail command [1-29](#)
 - show xml server command [3-105](#)
 - sleep command [2-141](#)
 - ssh command [2-142, 2-143](#)
 - system cores command [2-144](#)
 - system default switchport command [2-145](#)
 - system hap reset command [2-146](#)
 - system heartbeat command [2-147](#)
 - system internal command [2-148](#)
 - system memlog command [2-150](#)
 - system pss command [2-152](#)
 - system redundancy command [2-153](#)
 - system standby command [2-154](#)
 - system startup-config command [2-155](#)
 - system statistics command [2-156](#)
 - system switchover command [2-157](#)
 - system watchdog kdbg command [2-159](#)
-
- ## T
- tail command [2-160](#)
 - telnet command [2-162](#)
 - terminal alias command [2-163](#)
 - terminal color command [2-164](#)
 - terminal dont-ask command [2-165](#)
 - terminal edit-mode command [2-166](#)
 - terminal event-manager command [2-167](#)
 - terminal history command [2-168](#)
 - terminal length command [2-169](#)
 - terminal log-all command [2-170](#)
 - terminal output command [2-172](#)
 - terminal redirection-mode command [2-173](#)

terminal session-timeout command [2-174](#)
terminal terminal-type command [2-175](#)
terminal tree-update command [2-176](#)
terminal verify-only command [2-177](#)
terminal width command [2-178](#)
test aaa command [2-179](#)
traceroute command [2-181](#)

W

where command [2-183](#)
write erase command [2-184](#)

