



Cisco Virtual Security Gateway for VMware vSphere Command Reference, Release 4.2(1)VSG2(1.1)

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Cisco Virtual Security Gateway for VMware vSphere Command Reference, Release 4.2(1)VSG2(1.1)
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New and Changed Commands

This section provides release-specific information for the new and changed features in the *Cisco Virtual Security Gateway for VMware vSphere Command Reference, Release 4.2(1)VSG2(1.1)*. The latest version of this document is available at the following Cisco website: <http://www.cisco.com/go/techdocs>.

To check for additional information about Release 4.2(1)VSG2(1.1), see the *Cisco Virtual Security Gateway for VMware vSphere Release Notes, Release 4.2(1)VSG2(1.1)* available at the following Cisco website: <http://www.cisco.com/go/techdocs>.

Table 1 summarizes the new and changed features for the *Cisco Virtual Security Gateway for VMware vSphere Command Reference, Release 4.2(1)VSG2(1.1)*.

Table 1 *New and Changed Information in Release 4.2(1)VSG2(1.1)*

Feature	Description	Changed in Release	Where Documented
Cisco Virtual Security Gateway commands	New commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)VSG2(1.1)	clear event-log policy_engine, page 2-18 clear event-log service-path, page 2-19 cond-match-criteria, page 2-90 event-log archive, page 2-122 event-log inspect, page 2-123 no event-log all, page 2-143
Cisco Nexus 1000V Series switch	Some commands have been modified and new commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)SV2(1.1)	bypass asa-traffic, page 1-2 tcp state-checks, page 1-58
Cisco Nexus 1000V Series switch	Some commands have been modified and new commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)SV1(5.2)	clear vservice connection, page 1-4

Table 1 *New and Changed Information in Release 4.2(1)VSG2(1.1) (continued)*

Feature	Description	Changed in Release	Where Documented
Cisco Nexus 1000V Series switch	Some commands have been modified and new commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)SV1(5.1)	ping vsn , page 1-9 show vservice brief , page 1-29 show vservice connection , page 1-31 show vservice detail , page 1-34 vservice , page 1-64
Show Commands for Cisco Virtual Security Gateway for Cisco Nexus 1000V Series switch	Some commands have been modified to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)VSG1(3.1)	show ac-driver , page 3-3 show service-path connection , page 3-69 show service-path statistics , page 3-71
Cisco Nexus 1000V Series switch	Some commands have been modified and new commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)SV1(4a)	ping vsn , page 1-9 vservice global type vsg , page 1-66
Cisco Virtual Security Gateway for Cisco Nexus 1000V Series switch	Some commands have been modified and new commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)VSG1(2)	action , page 2-2 attribute , page 2-4 condition , page 2-88 event-log service-path , page 2-126 match , page 2-140 object-group , page 2-145 policy , page 2-147 rule , page 2-155 zone , page 2-211
Show Commands for Cisco Virtual Security Gateway for Cisco Nexus 1000V Series switch	Some commands have been modified and new commands have been added to enhance the performance of the Cisco Virtual Security Gateway for the Cisco Nexus 1000V Series switch.	4.2(1)VSG1(2)	show service-path connection , page 3-69 show vsg security-profile , page 3-98 show vsg vm , page 3-100 show vsg vm name , page 3-101 show vsg vm uuid , page 3-103 show vsg zone , page 3-104



Preface

This preface describes the audience, organization, and conventions of the *Cisco Virtual Security Gateway for VMware vSphere Command Reference, Release 4.2(1)VSG2(1.1)*. It also provides information on how to obtain the related documentation.

This preface includes the following sections:

- [Audience, page xv](#)
- [Organization, page xv](#)
- [Document Conventions, page xvi](#)
- [Related Documentation, page xvii](#)
- [Documentation Feedback, page xviii](#)
- [Obtaining Documentation and Submitting a Service Request, page xviii](#)

Audience

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

- VMware vCenter
- VMware vSphere
- VMware ESX and ESXi
- An understanding of virtualization
- 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.
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
screen font	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.

Related Documentation

This section contains information about the documentation available for Cisco Virtual Security Gateway and related products.

Cisco Virtual Security Gateway Documentation

The following Cisco Virtual Security Gateway for VMware vSphere documents are available on Cisco.com at the following URL:

http://www.cisco.com/en/US/products/ps13095/tsd_products_support_series_home.html

- *Cisco Virtual Security Gateway for VMware vSphere Release Notes, Release 4.2(1)VSG2(1.1)*
- *Cisco VSG for VMware vSphere, Release 4.2(1)VSG2(1.1) and Cisco VNMC, Release 2.1 Installation and Upgrade Guide*
- *Cisco Virtual Security Gateway for VMware vSphere License Configuration Guide, Release 4.2(1)VSG2(1.1)*
- *Cisco Virtual Security Gateway for VMware vSphere Configuration Guide, Release 4.2(1)VSG2(1.1)*
- *Cisco Virtual Security Gateway for VMware vSphere Command Reference, Release 4.2(1)VSG2(1.1)*
- *Cisco Virtual Security Gateway for VMware vSphere Troubleshooting Guide, Release 4.2(1)VSG2(1.1)*
- *Cisco vPath and vServices Reference Guide*

Cisco Virtual Network Management Center Documentation

The following Cisco Virtual Network Management Center documents are available on Cisco.com at the following URL:

http://www.cisco.com/en/US/products/ps11213/tsd_products_support_series_home.html

Cisco Nexus 1000V Series Switch Documentation

The Cisco Nexus 1000V Series Switch documents are available on Cisco.com at the following URL:

http://www.cisco.com/en/US/products/ps9902/tsd_products_support_series_home.html

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>

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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.

bypass asa-traffic

To configure the traffic to bypass the Cisco VSG in a service chain, use the **bypass asa-traffic** command. To return to the default setting, use the **no** form of this command.

bypass asa-traffic

no bypass asa-traffic

Syntax Description This command has no arguments or keywords.

Defaults None

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

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)SV1(4.1)	This command was introduced.

Usage Guidelines In a service chain, you can configure the switch traffic to bypass the Cisco VSG nodes, so that only the Cisco ASA policies are looked-up for traffic traversing between the outside and inside networks. When enabled, this functionality is implemented globally, not per interface.

Examples This example shows how to configure the switch traffic to bypass the Cisco VSG nodes:

```
n1000v# config t
n1000v(config)# vservice global type vsg
n1000v(config-vservice-global)# bypass asa-traffic
```

Related Commands	Command	Description
	vservice path	Configures a path for service chaining.
	vservice global type vsg	Enters the vservice global configuration mode.

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
	4.2(1)SV2(1)	The vn-service keyword was changed to vservice.
	4.2.1SV1(5.1)	This command was introduced.

Usage Guidelines If you are configuring a port profile for l3-vservice, you must first configure the port profile in switchport mode.

The capability iscsi-multipath feature cannot be configured with the capability l3-service feature.

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)# switchport mode access
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
	4.1(2)SV1(5.2)	The name of the command is modified.
	4.0(4)SV1(1)	This command was introduced.

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

Related Commands	Command	Description
	show vservice	Displays Cisco VSG information.

clear vservice statistics

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

```
clear vservice statistics [module module-number | vlan vlan-number]
```

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.1(2)SV1(5.2)	The name of the command is modified.
	4.0(4)SV1(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	Displays Cisco VSG information.

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
	4.0(4)SV1(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 Virtual Network Management Center (VNMC) 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 log-level { 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 VNMC policy agent configuration (config-vnm-policy-agent)

Supported User Roles

network-admin

Command History

Release	Modification
4.0(4)SV1(1)	This command was introduced.

Examples

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

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

Related Commands

Command	Description
vnm-policy-agent	Enables the Cisco VNMC policy agent configuration mode.

org

To create a Cisco Virtual Network Management Center (VNMC) organization (domain), use the **org** command. To delete a Cisco VNMC 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 allowed is from 1 to 251.
---------------------------	--

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

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

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

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines	<p>Cisco VNMC organizations are Cisco VNMC domains.</p> <p>You can hierarchically manage Cisco VNMC 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 containing 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	This example shows how to create an organization:
-----------------	---

```
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)#
```

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

ping vsn

To ping a virtual service node (VSN) (including the Cisco VSG) from the vPath, use the **ping vsn** command.

```
ping vsn [ip vsn-ip-addr {[vlan vsn-vlan-num] | [vxlan bridge-domain bridge-domain-name] | all}
{src-module {module-num | all | vpath-all}} [timeout secs] [count count]
```

Syntax Description		
ip		Designates that a specific IP address is to be pinged.
<i>vsn-ip-addr</i>		IP address of the specific VSN.
vlan		(Optional) Designates a specific VLAN is to be pinged.
<i>vsn-vlan-num</i>		Specific VLAN number.
vxlan bridge-domain		(Optional) Designates a virtual extensible local area network (VXLAN) bridge domain.
<i>bridge-domain-name</i>		VXLAN bridge-domain name.
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
	4.2(1)VSG1(4.1)	The output of the ping-vsn command was changed to support the VXLAN.
	4.2(1)VSG1(3.1)	The output of the ping-vsn command was changed to include the examples that show all of the source module traffic.
	4.2(1)VSG1(2)	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
  mpls                Ping an MPLS network
  multicast            Multicast ping
  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.
- o vlan <vlan-num> : All VSNS configured on this VLAN.
- 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 both the IP address and VLAN 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 vlan 54 src-module all (Ping specified VSN from all modules
having VMs associated to VSNS)
ping vsn ip 106.1.1.1 vlan 54 src-module 3 (Ping specified VSN from specified
module)
```

This example shows that the options timeout and count 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
ping vsn ip 106.1.1.1 vlan 54 src-vpath 3 count 10
```

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 501 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 501 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 501 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 501 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 501 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	VNMC policy agent configuration (config-vnm-policy-agent)				
SupportedUserRoles	network-admin				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(4)SV1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(4)SV1(1)	This command was introduced.
Release	Modification				
4.0(4)SV1(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)# vnm-policy-agent vsm(config-vnm-policy-agent)# policy-agent-image bootflash:</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>vnm-policy-agent</td> <td>Enables the VNM policy agent configuration mode.</td> </tr> </tbody> </table>	Command	Description	vnm-policy-agent	Enables the VNM policy agent configuration mode.
Command	Description				
vnm-policy-agent	Enables the VNM 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
	4.0(4)SV1(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 range for number of characters is from 1 to 80.
---------------------------	---------------------	--

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

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

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

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines	The port profile name must be unique for each port profile.
-------------------------	---

Examples	This example shows how to create a port profile called AccessProf:
-----------------	--

```
vsm# configure
vsm(config)# port-profile AccessProf
```

This example shows how to remove the port profile called AccessProf:

```
vsm# configure
vsm(config)# no port-profile AccessProf
```

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
	4.0(4)SV1(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

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

Command Default None

Command Modes Cisco VNMC policy agent configuration mode (config-vnm-policy-agent)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

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

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

Related Commands	Command	Description
	vnm-policy-agent	Enters the Cisco VNMC 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 Virtual Network Management Center (VNMC), 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 range is from 1 to 64. You must use at least one uppercase character.
---------------------------	--

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

Command Modes	Cisco VNMC policy agent configuration mode (config-vnm-policy-agent)
----------------------	--

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

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

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

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

Related Commands	Command	Description
	vnm-policy-agent	Enters VNM policy agent configuration mode.

show org port brief

To display 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>	Virtual Ethernet number.
module	(Optional) Displays the module number.
<i>module_num</i>	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
4.1(2)SV1(5.2)	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:

```
Veth    Mod VM-Name          vNIC  IP-Address
  2     4 fc3-2610-4          2    100.1.1.1
  5     5 fc3-2610-5          3    100.1.1.2
  9     5 fc3-2610-6          1    100.1.1.3
```

show running-config

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

```
show running-config [aaa | aclmgr | all | am | arp | cdp | diff | exclude | expand-port-profile |
icmpv6 | igmp | interface | ip | ipqos | ipv6 | l3vm | license | monitor | ntp | port-profile |
port-security | radius | rpm | security | snmp | vdc-all | vlan | vshd | aclog | dhcp | vservices
[node node-name | path path-name]]
```

aaa	(Optional) Displays the Authentication, Authorization, and Accounting (AAA) configuration.
aclmgr	(Optional) Displays the running configuration for Access Control List (ACL) manager.
all	(Optional) Displays the current operating configurations.
am	(Optional) Displays Application Management (AM) information.
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.
exclude	(Optional) Excludes the running configuration of specified features.
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.
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.
snmp	(Optional) Displays the Simple Network Management Protocol (SNMP) configuration.
vdc-all	(Optional) Displays all virtual device context (VDC) configurations.

■ show running-config

vlan	(Optional) Displays virtual large area network (VLAN) information.
vshd	(Optional) Displays the running configuration for the virtual shared hardware device (VSHD).
aclog	(Optional) Displays aclog information.
dhep	(Optional) Displays dhep information.
vservices	(Optional) Specifies the virtual services.
name	(Optional) Displays the service node name.
<i>node-name</i>	Service node.
Path	(Optional) Filters the vservice pathname.
<i>path-name</i>	Service pathname.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)SV1(5.1)	New parameters were added to this command.
	4.0(4)SV1(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# show running-config

!Command: show running-config
!Time: Tue Jan  4 17:20:05 2011

version 4.2(1)SV1(4)
no feature telnet

username admin password 5 $1$z3M0/3no$j77mpF9f/mqmd7/mEZ6RR1 role network-admin
username adminbackup password 5 $1$0ip/C5Ci$oOdx7oJS1BCFpNRmQK4na. role network-operator

banner motd #Nexus 1000v Switch#
```

```
ip domain-lookup
ip domain-lookup
switchname vsm
vem 3
  host vmware id 765186a7-eb7c-11de-b059-8843e1389748
vem 4
  host vmware id 90a97ac6-31d7-11df-ad65-68efbdf622ca
vem 5
  host vmware id 833fe152-3f8b-11df-bd70-68efbdf64970
snmp-server user admin network-admin auth md5 0x5ed3cfea7c44550ac3d18475f28b118b
  priv 0x5ed3cfea7c44550ac3d18475f28b118b localizedkey

vrf context management
  ip route 0.0.0.0/0 10.193.72.1
vlan 1,61-65
port-channel load-balance ethernet source-mac
port-profile default max-ports 32
port-profile default port-binding static
port-profile type vethernet vm-clear
  vmware port-group
  switchport mode access
  switchport access vlan 63
  no shutdown
  state enabled
port-profile type vethernet vsn-service
  vmware port-group
  switchport mode access
  switchport access vlan 64
  no shutdown
  max-ports 1024
  state enabled
port-profile type ethernet system-uplink
  vmware port-group
  switchport trunk allowed vlan 61-70
  switchport mode trunk
  no shutdown
  system vlan 61-62
  state enabled
port-profile type vethernet vsg129-2
  vmware port-group
  switchport mode access
  switchport access vlan 63
  org root/Canon
  vn-service ip-address 10.10.129.2 vlan 64 security-profile sp-vsg2-1
  no shutdown
  state enabled
port-profile type vethernet vsg134-1
  vmware port-group
  switchport mode access
  switchport access vlan 63
  vn-service ip-address 10.10.134.1 vlan 64 mgmt-ip-address 10.10.73.132 security-profile
  spl
  no shutdown
  state enabled
port-profile type vethernet vsg136-1
  vmware port-group
  switchport mode access
  switchport access vlan 63
  vn-service ip-address 10.10.136.1 vlan 64 mgmt-ip-address 10.10.73.137 security-profile
  spl
  no shutdown
  state enabled
port-profile type vethernet vsg129_2-svc-vlan65
  vmware port-group
```

show running-config

```

switchport mode access
switchport access vlan 65
vn-service ip-address 10.10.129.2 vlan 64 mgmt-ip-address 10.10.73.131 security-profile
sp1
no shutdown
state enabled
port-profile type vethernet vm-clear-vlan65
vmware port-group
switchport mode access
switchport access vlan 65
no shutdown
state enabled
port-profile type ethernet Unused_Or_Quarantine_Uplink
vmware port-group
shutdown
description Port-group created for Nexus1000V internal usage. Do not use.
state enabled
port-profile type vethernet Unused_Or_Quarantine_Veth
vmware port-group
shutdown
description Port-group created for Nexus1000V internal usage. Do not use.
state enabled
port-profile type vethernet vm-clear-vlan63
vmware port-group
switchport mode access
switchport access vlan 63
no shutdown
state enabled

vdc vsm 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 10.10.73.130/21

interface Vethernet1
inherit port-profile vm-clear-vlan63
description UD134-1,Network Adapter 2
vmware dvport 7489 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
vmware vm mac 0050.56BB.0029

interface Vethernet2
inherit port-profile vsg136-1
description UD136-1,Network Adapter 2
vmware dvport 7458 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
vmware vm mac 0050.56BB.0032

interface Vethernet3
inherit port-profile vm-clear-vlan63
description US136-1,Network Adapter 2
vmware dvport 7492 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
vmware vm mac 0050.56BB.0030

interface Vethernet4
inherit port-profile vsg129-2
description US129-1,Network Adapter 2
vmware dvport 6563 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"

```



```

vmware vm mac 0050.56BB.003E

interface Vethernet5
  inherit port-profile vm-clear-vlan63
  description US129-2,Network Adapter 2
  vmware dvport 7491 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.0040

interface Vethernet6
  inherit port-profile vsn-service
  description VSGL34-1,Network Adapter 1
  vmware dvport 3683 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.002C

interface Vethernet7
  inherit port-profile vsn-service
  description VSGL29-2,Network Adapter 1
  vmware dvport 3686 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.0037

interface Vethernet8
  inherit port-profile vsn-service
  description VSGL36-1,Network Adapter 1
  vmware dvport 3684 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.0034

interface Ethernet3/2
  inherit port-profile system-uplink

interface Ethernet4/6
  inherit port-profile system-uplink

interface Ethernet5/6
  inherit port-profile system-uplink

interface control0
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
svs-domain
  domain id 61
  control vlan 61
  packet vlan 62
  svcs mode L2
svs connection vcenter
  protocol vmware-vm
  remote ip address 10.10.79.32 port 80
  vmware dvs uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c" datacenter-name NAME/S
  connect
vnm-policy-agent
  registration-ip 10.193.73.144
  shared-secret *****
  policy-agent-image bootflash:/vnm-c-vsm-pa.1.0.0.512.bin
  log-level

```

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>	Name of the vservice node.
------------------	----------------------------

Command Default

None

Command Modes

EXEC

Supported User Roles

Network-admin
Network-operator

Command History

Release	Modification
4.1(2)SV1(5.2)	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: Mon Jul 9 16:10:19 2012

version 4.2(1)SV1(5.2)
vservice node vasatDbd5 type asa
  ip address 172.8.8.201
  adjacency 12 vxlan bridge-domain bd5555
  fail-mode open
vservice node vasatCbd5 type asa
  ip address 172.8.8.101
  adjacency 12 vxlan bridge-domain bd5555
  fail-mode open
```

```

vservice node vsntest type vsg
  fail-mode close
vservice node testvwaas type vwaas
  fail-mode close
vservice node test type vsg
  adjacency 13
  fail-mode open
vservice node testip type vsg
  fail-mode close
vservice node vsgl2tC type vsg
  ip address 10.10.10.103
  adjacency 12 vlan 504
  fail-mode close
vservice node vsgl2tA101 type vsg
  ip address 10.10.10.101
  adjacency 12 vlan 504
  fail-mode close
vservice node vsgl2tB102 type vsg
  ip address 10.10.10.102
  adjacency 12 vlan 504
  fail-mode close
vservice node vsgtCbd6 type vsg
  ip address 10.10.10.103
  adjacency 12 vxlan bridge-domain bd6666
  fail-mode close
vservice node vsgl2tD104 type vsg
  ip address 10.10.10.104
  adjacency 12 vlan 504
  fail-mode open
vservice node vsgl2tE105 type vsg
  ip address 10.10.10.105
  adjacency 12 vlan 504
  fail-mode close
vservice node vsgl3tA101 type vsg
  ip address 10.10.10.201
  adjacency 13
  fail-mode close
vservice node vsgl3tB102 type vsg
  ip address 10.10.10.202
  adjacency 13
  fail-mode close
vservice node vsgl3tC103 type vsg
  ip address 10.10.10.203
  adjacency 13
  fail-mode close
vservice node vsgl3tD104 type vsg
  ip address 10.10.10.204

```

Related Commands

Command	Description
vservice node	Configures a service node.

show running-config vservice path

To display the configuration details of the vservice paths, use the **show running-config vservice path** command.

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

Syntax Description

<i>node-name</i>	Name of the vservice node's name.
------------------	-----------------------------------

Command Default

None

Command Modes

EXEC

Supported User Roles

Network-admin
Network-operator

Command History

Release	Modification
4.1(2)SV1(5.2)	This command was introduced.

Usage Guidelines

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

```
vsm# show running-config vservice path

!Command: show running-config vservice path
!Time: Mon Jul 9 16:52:55 2012

version 4.2(1)SV1(5.2)
vservice path sp-tDvsg504vasabd5
  node vsgl2tD104 profile sp-tD order 1
  node vasatDbd5 profile ep-tD order 100
vservice path sp-tDvsgl3vasabd5
  node vsgl3tD104 profile sp-tD order 1
  node vasatDbd5 profile ep-tD order 1000000000
vservice path sp-vsgl3tD
  node vsgl3tD104 profile sp-tD13
```

```

vservice path sp-vsgl2tD
  node vsgl2tD104 profile sp-tD
vservice path sp-vsgbd6tC
  node vsgtCbd6 profile sp-tC
vservice path sp-vasal2tC
  node vasal2tC profile ep-tC order 10
vservice path sp-tCvsg504vasa503
  node vsgl2tC profile sp-tC order 10
  node vasal2tC profile ep-tC order 20
vservice path sp-tCvsgbd6vasa503
  node vsgtCbd6 profile sp-tC order 10
  node vasal2tC profile ep-tC order 20
vservice path sp-tCvsgbd6vasabd5
  node vsgtCbd6 profile sp-tC order 1410065406
  node vasatCbd5 profile ep-tC order 1410065407
vservice path sp-tDedittest
  node vsgl3tD104 profile sp-tD order 1
  node vasatDbd5 profile ep-tD order 22
vservice path sptest
vservice path sp-tEvsgl3
  node vsgl3tE105 profile sp-tE order 10
vservice path sp-tDvasabd5
  node vasatDbd5 profile ep-tD order 100

```

Related Commands

Command	Description
vservice path	Configures a service path.

show vnm-pa status

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

```
show vnm-pa status
```

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vnm-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 vnm-pa status
VNM Policy-Agent status is - Installed Successfully. Version 1.0(0.512)-vsm
vsm(config)#
```

Related Commands	Command	Description
	vnm-policy-agent	Enters the Cisco VNMC 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-l3 node-ipaddr ip-addr | node-l3 module module-num] [node-vxlan
bridge-domain bridge-domain-name] | node-vlan vlan-id | node-name node name | module
module-num
```

Syntax Description

node-l3 node-ipaddr	(Optional) Displays the Layer 3 mode (using the IP address) for the service node.
<i>ip-addr</i>	IP address of the service node.
node-l3 module	(Optional) Displays the module in the service node.
<i>module-num</i>	Module number.
node-vxlan bridge-domain	(Optional) Displays the domain bridge name associated with the Virtual Extensible Local Area Network (VXLAN).
<i>bridge-domain-name</i>	Bridge domain name.
node_vlan	Displays the VLAN connected with the service node.
<i>vlan_num</i>	VLAN number.
name	Displays the service node name.
<i>node-name</i>	Service node.
module	Displays the module number.
<i>module-num</i>	Module number.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.1(2)SV1(5.2)	The output of the show vservice brief is changed.
	4.1(2)SV1(5.1)	The output of the show vsn brief was changed to show the information about the Cisco VSG in L2 and L3 mode.
	4.0(4)SV1(1)	This command was introduced.

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

show vservice brief

- >—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

#License Information
Type      In-Use
vsg       0
asa       2

#Node Information
ID Name           Type  IP-Address  Mode  State  Module
1  vasatDbd5       asa   172.8.8.201 vxlan  Alive  4,
12 vsgtCbd6       vsg   10.10.10.103 vxlan  Alive?? 4,6,
13 vsgl2tD104     vsg   10.10.10.104 v-504  Alive  4,
18 vsgl3tD104     vsg   10.10.10.204 13     Alive  4,6,
19 vsgl3tE105     vsg   10.10.10.205 13     Unreach 4,6,

#Path Information
#Path ID:2        NumOfSvc:2  Name:sp-tDvsgl3vasabd5      Mod:4,
Node              Order  Profile
vsgl3tD104       1      sp-tD
vasatDbd5        1000000000 ep-tD
#Path ID:5        NumOfSvc:1  Name:sp-vsgbd6tC            Mod:4,6,
Node              Order  Profile
vsgtCbd6         --     sp-tC
```

Related Commands

Command	Description
show vsn port vethernet	Displays information about the Cisco VSG.

show vservice connection

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

```
show vservice connection [node-name node-name] [node-vxlan bridge-domain bdname |
node-vlan vlan-num | node-l3 [node-ipaddr ip-addr | module module-num] | node-ipaddr
ip-addr] | path-name path-name | port-profile port-profile-name | service-profile
service-profile-name]
```

Syntax Description		
node-name	(Optional) Displays the name of the service VLAN.	
<i>node-name</i>	Service node name.	
node-vxlan bridge-domain	(Optional) Displays by the domain bridge name associated with the Virtual Extensible Local Area Network (VXLAN).	
<i>bd-name</i>	Bridge domain name.	
node-vlan	(Optional) Displays the VLAN node for the VSG service VLAN.	
<i>vlan-num</i>	VLAN module number for the VSG service VLAN.	
node-l3 node-ipaddr	(Optional) Displays the Layer 3 mode (using the IP address) for the service node.	
<i>ip-addr</i>	IP address of the service node.	
node-l3 module	(Optional) Displays the module in the service node.	
<i>module-num</i>	Module number to see all the VSN connections on the module.	
node_ipaddr	(Optional) Displays the IP address of the service node.	
<i>ip-addr</i>	IP address of the service node.	
path-name	(Optional) Displays the vservice pathname.	
<i>path_name</i>	Service path name.	
port-profile	(Optional) Displays the port information for the specified port-profile name.	
<i>port-profile</i>	Port-profile name.	
service-profile	(Optional) Displays the port information for the specified service-profile name.	
<i>service_profile</i>	Service-profile name.	

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	The output of the show vservice connection command was modified to show the Cisco VSG connections.
4.2.1SV1(5.1)	The output of the show vservice connection command was modified to show that the VLAN column is now referred as V(X)LAN. In the V(X)LAN column, the VLAN is represented with prefix "v-" and V(X)LAN is shown without any prefix.
4.0(4)SV1(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:

```
vsm# show vservice connection
module          node_l3          node_vlan
node_ipaddr     node_name       node_vxlan
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

#Node vsgl2tD104
#Module 4
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes

#Path sp-vsgbd6tC
#Module 4
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes
#Module 6
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes

#Path sp-tDvsgl3vasabd5
#Module 4
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes

#Node vsgtCbd6
#Module 4
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes
#Module 6
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes

#Node vsgl3tE105
#Module 4
```

```

Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes
#Module 6
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes

#Node vsg13tD104
#Module 4
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes
#Module 6
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags          Bytes

```

Related Commands

Command	Description
show vsn port vethernet	Displays port information.

show vservice detail

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

```
show vservice detail { module module_num | node_ipaddr ip_addr | node_l3 node_l3 |
  node_name node_name | node_vxlan vxlan_num | node_vlan vlan_num | path_name
  path_name port-profile port_profile | service-profile service_profile }
```

Syntax Description

module	Displays the module number.
<i>module_num</i>	Module number.
node_ipaddr	Displays the IP address of the service node.
<i>ip_addr</i>	IP address of the service node.
node_l3	Displays the node associated with the Layer 3 mode.
<i>node_l3</i>	Layer 3 mode for the vservice node.
node_name	Displays the node name.
<i>node_name</i>	Service node name.
node_vxlan	Displays the VXLAN node.
<i>vxlan_num</i>	VXLAN number for the Cisco VSG service VXLAN.
node_vlan	Displays the VLAN node.
<i>vlan_num</i>	VLAN number for the Cisco VSG service VLAN.
path-name	Displays the vservice pathname.
<i>path_name</i>	Service pathname.
port-profile	Displays the port information for the specified port-profile name.
<i>port-profile</i>	Port-profile name.
service-profile	Displays the port information for the specified service-profile name.
<i>service_profile</i>	Service-profile name.

Command Default

None

Command Modes

EXEC

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	The output of the show vservice detail command is changed.
4.2.1SV1(5.1)	The output of the show vsn detail command was changed to show the detailed information about Cisco VSGs.
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show vsn 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
```

```
-----
#VSN VLAN: -, IP-ADDR: 10.1.1.40
  MODULE      VSN-MAC-ADDR  FAIL-MODE  VSN-STATE
    9          -          Close      Up
    11         -          Close      Up
    12         -          Close      Up

#VSN VLAN: -, IP-ADDR: 10.1.1.68
  MODULE      VSN-MAC-ADDR  FAIL-MODE  VSN-STATE
    12         -          Close      Up

#VSN VLAN: 502, IP-ADDR: 10.1.1.45
  MODULE      VSN-MAC-ADDR  FAIL-MODE  VSN-STATE
    11  00:50:56:8f:5a:bb  Close      Up
    12  00:50:56:8f:5a:bb  Close      Up

#VSN VLAN: 501, IP-ADDR: 10.1.1.44
  MODULE      VSN-MAC-ADDR  FAIL-MODE  VSN-STATE
    9  00:50:56:8f:5a:85   Close      Up
    11 00:50:56:8f:5a:85   Close      Up

#VSN VLAN: 501, IP-ADDR: 10.1.1.40
  MODULE      VSN-MAC-ADDR  FAIL-MODE  VSN-STATE
    9  00:50:56:8e:35:bd   Close      Up
    11 00:50:56:8e:35:bd   Close      Up

#VSN VLAN: 501, IP-ADDR: 10.1.1.41
  MODULE      VSN-MAC-ADDR  FAIL-MODE  VSN-STATE
    11 00:50:56:8f:5a:7f   Close      Up

#VSN Ports, Port-Profile, Org & Security-Profile Association:
#VSN VLAN: -, IP-ADDR: 10.1.1.40
  Port-Profile: segment-5000-routed, Security-Profile: tenant1-sp1, Org: root/tenant1
  Module Vethernet
    9 4
    11 36, 25
    12 69, 26, 67
  Port-Profile: segment-5001, Security-Profile: tenant1-sp1, Org: root/tenant1
  Module Vethernet
    9 45
```

■ **show vservice detail**

```
#VSN VLAN: -, IP-ADDR: 10.1.1.68
  Port-Profile: N1010-L3, Security-Profile: n1010-sp, Org: root/tenant1
    Module Vethernet
      12 41, 46
#VSN VLAN: 502, IP-ADDR: 10.1.1.45
  Port-Profile: segment-5002, Security-Profile: tenant3-sp2, Org: root/tenant3
    Module Vethernet
      3 84, 85
      4 86
  Port-Profile: tenant3-sp2, Security-Profile: tenant3-sp2, Org: root/tenant3
    Module Vethernet
      11 37, 40, 39, 38
      12 74
#VSN VLAN: 501, IP-ADDR: 10.1.1.44
  Port-Profile: tenant1-vsg2, Security-Profile: tenant1-sp2, Org: root/tenant1
    Module Vethernet
      9 49, 55, 54, 53, 52, 51, 50, 56, 63, 62,
      61, 60, 59, 58, 57, 6, 7, 13, 14, 15,
      2, 1
      11 16, 17, 22, 21, 20, 19, 18
#VSN VLAN: 501, IP-ADDR: 10.1.1.40
  Port-Profile: data-53, Security-Profile: tenant1-sp1, Org: root/tenant1
    Module Vethernet
      9 24
      11 23
#VSN VLAN: 501, IP-ADDR: 10.1.1.41
  Port-Profile: tenant2, Security-Profile: tenant2-sp1, Org: root/tenant2
    Module Vethernet
      11 68, 12, 72
```

vsm#

Related Commands

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

show vservice license brief

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

show vservice license brief

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show vservice license 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 brief information about the license:

```
vsm# show vservice license brief
-----
                                License Information
-----
Type      In-Use-Lic-Count  UnLicensed-Mod
vsg              6
asa              2
```

Related Commands	Command	Description
	show license usage	Displays the vservice node license usage.

show vservice license detail

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

```
show vservice license detail {module module_num}
```

Syntax Description

module	Displays the module number.
<i>module_num</i>	Module number. The range is from 3 to 66.

Command Default

None

Command Modes

Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	This command was introduced.

Usage Guidelines

You can use the following operators with the **show vservice license 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 brief information about the license:

```
vsm# show vservice license detail module 4
```

```
-----
                                License Information
-----
Mod  VSG-Lic-Count  ASA-Lic-Count
  4             2             2
```

Related Commands

Command	Description
show license usage	The vservice license usage.

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

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2.1SV1(5.2)	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# show vservice node mac brief
```

```
-----
                                Node Information
-----
ID Type   IP-Address   MAC-Addr      Mode  Fail  State  Module
 1 asa    172.8.8.201  00:50:56:b5:37:8f vxlan open  Alive  4,
12 vsg    10.10.10.103 00:50:56:b5:25:f7 vxlan close Alive 4,6,7,
13 vsg    10.10.10.104 00:50:56:b5:6d:36 v-504 close Alive 4,
18 vsg    10.10.10.204 00:00:00:00:00:00 13    open  Alive 4,6,
```

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 node-name | vxlan bridge-domain bdname | vlan vlan_num | I3
ip-addr ip-addr | I3 module module-num] | ipaddr ip-addr | module module-num]
```

Syntax Description

name	(Optional) Displays the service node name.
<i>node-name</i>	Service node.
vxlan bridge-domain	Displays the VXLAN number associated with the service node.
<i>bd_name</i>	Bridge domain name.
vlan	Displays the VLAN node for the Cisco VSG service VLAN.
<i>vlan_num</i>	VLAN number for the Cisco VSG service VLAN.
I3	Displays the Layer 3 mode (using IP address) for the service node.
ipaddr	Displays the IP address of the service node.
<i>ip-addr</i>	IP address of the service node.
I3 module	Displays the Layer 3 module.
module	(Optional) Displays the module number.
<i>module-num</i>	Module number.

Command Default

None

Command Modes

EXEC

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	The output of the show vservice node brief command was modified.
4.2.1SV1(5.1)	The output of the show vsn brief was modified to show the information about the Cisco VSG in Layer 2 and Layer 3 mode.
4.0(4)SV1(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 of the Cisco VSG vservice node:

```
vsm# show vservice node brief
```

```
-----  
Node Information  
-----  
ID Name                Type    IP-Address    Mode    State    Module  
 1 vasatDbd5            asa     172.8.8.201   vxlan   Alive    4,  
12 vsgtCbd6             vsg     10.10.10.103  vxlan   Alive    4,6,7,  
13 vsg12tD104          vsg     10.10.10.104  v-504   Alive    4,  
18 vsg13tD104          vsg     10.10.10.204  13      Alive    4,6,
```

show vservice node detail

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

```
show vservice node detail [name node-name | vxlan bridge-domain bdname | vlan vlan_num | I3
ip-addr ip-addr | I3 module module-num] | ipaddr ip-addr | module module-num]
```

Syntax Description	name	(Optional) Displays the service node name.
	<i>node-name</i>	Service node.
	vxlan bridge-domain	Displays the VXLAN number associated with the service node.
	<i>bd_name</i>	Bridge domain name.
	vlan	(Optional) Displays the VLAN node for the VSG service VLAN.
	<i>vlan_num</i>	VLAN number for the VSG service VLAN.
	I3 ipaddr	(Optional) Displays the Layer 3 IP address of the node.
	I3 module	(Optional) Displays the Layer 3 mode (using the IP address) for the service node.
	ipaddr	(Optional) Displays the IP address of the node.
	<i>ip-addr</i>	IP address of the node.
	module	(Optional) Displays the module number.
	<i>module-num</i>	Module number.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2.1SV1(5.2)	The output of the show vservice node detail command was modified to display the details about the Cisco VSG vservice nod
	4.2.1SV1(5.1)	The output of the show vsn connection command was modified to show that the VLAN column is now referred as V(X)LAN. In the V(X)LAN column, the VLAN is represented with a prefix “v-” and V(X)LAN is shown without any prefix.
	4.0(4)SV1(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# show vservice node detail
```

```
-----
Node Information
-----
Node ID:1      Name:vasatDbd5
Type:asa      IPAddr:172.8.8.201      Fail:open  Vxlan:bd5555
Mod  State      MAC-Addr      VVer
  4  Alive      00:50:56:b5:37:8f      2

Node ID:12     Name:vsgtCbd6
Type:vsg      IPAddr:10.10.10.103     Fail:close Vxlan:bd6666
Mod  State      MAC-Addr      VVer
  4  Alive      00:50:56:b5:25:f7      2
  6  Alive      00:50:56:b5:25:f7      2
  7  Alive      00:50:56:b5:25:f7      2

Node ID:13     Name:vsg12tD104
Type:vsg      IPAddr:10.10.10.104     Fail:close Vlan:504
Mod  State      MAC-Addr      VVer
  4  Alive      00:50:56:b5:6d:36      2

Node ID:18     Name:vsg13tD104
Type:vsg      IPAddr:10.10.10.204     Fail:open  L3
Mod  State      MAC-Addr      VVer
  4  Alive      --              2
  6  Alive      --              2
```

show vservice path brief

To display a brief summary about the vservice path, use the **show vservice path brief** command.

show vservice path brief [**module** *module-number* | **name** *name*]

Syntax Description	module	(Optional) Displays the module that is assigned to the service node.
	<i>module-number</i>	Module number.
	name	(Optional) Displays the pathname to the service node.
	<i>name</i>	Pathname to the service node.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.1(2)SV1(5.2)	This command was introduced.

Examples This example shows how to display the vservice path:

```
vsm# show vservice path brief
module name
#Path Information
#Path ID:2      NumOfSvc:2  Name:sp-tDvsgl3vasabd5      Mod:4,
Node
  vsgl3tD104          1  sp-tD
  vasatDbd5          1000000000  ep-tD
#Path ID:5      NumOfSvc:1  Name:sp-vsgbd6tC            Mod:4,6,
Node
  vsgtCbD6           --  sp-tC
```

Related Commands	Command	Description
	show vservice path detail	Displays the details of the vservice path.

show vservice path detail

To display only the details of the vservice path, use the **show vservice path detail** command.

show vservice path detail [**module** *module-number* | **name** *name*]

Syntax Description	module	(Optional) Displays the module.
	<i>module-number</i>	Module number.
	name	(Optional) Displays the pathname to the service node.
	<i>name</i>	Pathname to the service node.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.1(2)SV1(5.2)	This command was introduced.

Examples This example shows how to display the vservice path:

```
vsm# show vservice path detail
module  name
#Path Information
#Path ID:2      NumOfSvc:2  Name:sp-tDvsgl3vasabd5      Mod:4,
Node
  vsgl3tD104      1  sp-tD
  vasatDbd5      1000000000  ep-tD
#Path ID:5      NumOfSvc:1  Name:sp-vsgbd6tC          Mod:4,6,
Node
  vsgtCbd6      --  sp-tC
```

Related Commands	Command	Description
	show vservice path brief	Displays a summary of the vservice path.

show vservice port brief

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

```
show vservice port brief { module module_num | node-ipaddr ip_addr | node-l3 [node-ipaddr
ip_addr | module module-num] | node-name node_name | node-vlan vlan-num | node-vxlan
bridge-domain bdname | path-name path_name | port-profile port_profile | service-profile
service_profile | vethernet vethernet_num}
```

Syntax Description

module	Displays the port information for the specified module.
<i>module_num</i>	Module number.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip_addr</i>	Node's IP address.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	(Optional) Displays the IP address of the node.
<i>ip_addr</i>	Node's IP address.
node-name	Displays the name of the service node.
<i>node-name</i>	Service node.
node-vlan	Displays the VLAN number associated with the service node.
<i>vlan-num</i>	VLAN number.
node-vxlan bridge-domain	Displays the Virtual Extensible Local Area Network (VXLAN) number associated with the service node.
<i>bdname</i>	VXLAN name.
path-name	Displays the vservice pathname.
<i>path_name</i>	Service pathname.
port-profile	Displays the port information for the specified port-profile name.
<i>port_profile</i>	Port-profile name.
service-profile	Displays the port information for the specified service-profile name.
<i>service_profile</i>	Service-profile name.
vethernet	Displays the port information for the specified virtual Ethernet number.
<i>vethernet_num</i>	Virtual Ethernet number.

Command Modes

EXEC

Supported User Roles

Network-admin
Network-operator

Command History

Release	Modification
4.1(2)SV1(5.2)	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 of the vservice ports for module number 4:

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

```
-----
Port Information
-----
PortProfile:tC-bd5-vsgbd6
Org:root/tC
Node:vsgtCbD6(10.10.10.103)           Profile(Id):sp-tC(5)
Veth Mod VM-Name                    vNIC IP-Address
  9   4  cos-8.10-bd5-spvsgbd6       2 172.8.8.10,
 23   4  cos-8.41-bd6-vsgbd6         1 172.8.8.41,
 37   4  xp-8.11-504-vsg504          1 172.8.8.11,
 51   4  cos-8.37-503-s...04vasa503  1 172.8.8.37,
 53   4  cos-8.31-503-vsgbd6         1 172.8.8.31,

PortProfile:tD-bd5-spvsgl3vasabd5
Org:root/tD
Path:sp-tDvsgl3vasabd5
Node                               Profile(Id)
  vsgl3tD104(10.10.10.204)         sp-tD(6)
  vasatDbd5(172.8.8.201)          ep-tD(8)
Veth Mod VM-Name                    vNIC IP-Address
  72   4  cos-8.40-bd5-s...l3vasabd5  1 172.8.8.40,

PortProfile:tD-504-vsg504
Org:root/tD
Node:vsgl2tD104(10.10.10.104)       Profile(Id):sp-tD(6)
Veth Mod VM-Name                    vNIC IP-Address
  69   4  cos-8.38-504-vsg504        1 172.8.8.38,

PortProfile:tD-bd5-vsgl3
Org:root/tD
Node:vsgl3tD104(10.10.10.204)       Profile(Id):sp-tDl3(7)
Veth Mod VM-Name                    vNIC IP-Address
  50   4  2k3-9.8-bd6-spvsgl3        1 172.9.9.8,

PortProfile:tC-bd6-vsgbd6
Org:root/tC
Node:vsgtCbD6(10.10.10.103)         Profile(Id):sp-tC(5)
Veth Mod VM-Name                    vNIC IP-Address
  11   4  cos-9.13-bd6-vsgl3         1 172.9.9.13,
```

■ show vservice port brief

Related Commands

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

show vservice port detail

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

```
show vservice port detail { module module_num | node-ipaddr ip_addr | node-l3 [node-ipaddr
ip_addr | module module-num] | node-name node_name | node-vlan vlan_num | node-vxlan
bridge-domain bdname | path-name path_name | port-profile port_profile | service-profile
service_profile | vethernet vethernet_num }
```

Syntax Description

module	Displays the port information for the specified module.
<i>module_num</i>	Module number.
node-ipaddr	Displays the port information for the specified IP address of the node.
<i>ip_addr</i>	Node's IP address.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-name	Displays the node name.
<i>node_name</i>	Name of the node.
node-vlan	Displays the VLAN number of the node.
<i>vlan_num</i>	VLAN number.
node-vxlan bridge-domain	Displays the bridge domain of VXLAN.
<i>bdname</i>	Bridge domain name.
path-name	Displays the port information for the specified pathname.
<i>path_name</i>	Service pathname.
port-profile	Displays the port information for the specified port-profile name.
<i>port_profile</i>	Port-profile name.
service-profile	Displays the port information for the specified service-profile name.
<i>service_profile</i>	Service-profile name.
vethernet	Displays the port information for the specified virtual Ethernet number.
<i>vethernet_num</i>	Virtual Ethernet number.

Command Modes EXEC

Supported User Roles Network-admin
Network-operator

Command History	Release	Modification
	4.1(2)SV1(5.2)	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 the detailed information of the vservice for module 4:

```
vsm# show vservice port detail module 4
-----
                                Port Information
-----
PortProfile:tC-bd5-vsgbd6
Org:root/tC
Node:vsgtCbd6(10.10.10.103)           Profile(Id):sp-tC(5)
Veth9
Module :4
VM-Name :cos-8.10-bd5-spvsgbd6
vNIC:Network Adapter 2
DV-Port :4421
VM-UUID :50 35 a1 39 18 76 76 18-89 89 27 33 1a 30 50 20
DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
IP-Addrs:172.8.8.10,
Veth23
Module :4
VM-Name :cos-8.41-bd6-vsgbd6
vNIC:Network Adapter 1
DV-Port :4425
VM-UUID :50 35 d5 98 de c1 04 5b-3e 84 a6 2c 9f 04 2b c2
DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
IP-Addrs:172.8.8.41,
Veth37
Module :4
VM-Name :xp-8.11-504-vsg504
vNIC:Network Adapter 1
DV-Port :4424
VM-UUID :50 35 bc 16 8c fa a8 66-ae d9 1f ca 30 e5 21 3e
DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
IP-Addrs:172.8.8.11,
Veth51
Module :4
VM-Name :cos-8.37-503-s...04vasa503
vNIC:Network Adapter 1
DV-Port :4416
VM-UUID :50 35 1d f6 ba 4e 26 7e-78 02 03 a8 cf c6 ed d9
DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
IP-Addrs:172.8.8.37,
Veth53
Module :4
VM-Name :cos-8.31-503-vsgbd6
vNIC:Network Adapter 1
DV-Port :4420
VM-UUID :50 35 42 e3 93 f9 aa 46-3e 94 bb fd 39 23 a7 c0
DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
IP-Addrs:172.8.8.31,

PortProfile:tD-bd5-spvsgl3vasabd5
Org:root/tD
Path:sp-tDvsgl3vasabd5           NumOfSvc:2
```

```

Node
  vsg13tD104(10.10.10.204)
  vasatDbd5(172.8.8.201)
Profile(Id)
  sp-tD(6)
  ep-tD(8)
Veth72
  Module :4
  VM-Name :cos-8.40-bd5-s...13vasabd5
  vNIC:Network Adapter 1
  DV-Port :3712
  VM-UUID :50 35 af 46 40 bb ef 61-37 9e c7 6f 5a 97 4e 18
  DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
  IP-Addrs:172.8.8.40,

PortProfile:tD-504-vsg504
Org:root/tD
Node:vsg12tD104(10.10.10.104)
Profile(Id):sp-tD(6)
Veth69
  Module :4
  VM-Name :cos-8.38-504-vsg504
  vNIC:Network Adapter 1
  DV-Port :4642
  VM-UUID :50 35 9a 63 d0 6a ff de-a5 66 65 2c 06 be e4 c1
  DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
  IP-Addrs:172.8.8.38,

PortProfile:tD-bd5-vsg13
Org:root/tD
Node:vsg13tD104(10.10.10.204)
Profile(Id):sp-tD13(7)
Veth50
  Module :4
  VM-Name :2k3-9.8-bd6-spvsg13
  vNIC:Network Adapter 1
  DV-Port :3777
  VM-UUID :50 35 93 44 8b 31 35 e1-02 50 e1 5c 5e 3f 51 2a
  DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
  IP-Addrs:172.9.9.8,

PortProfile:tC-bd6-vsgbd6
Org:root/tC
Node:vsgtCbD6(10.10.10.103)
Profile(Id):sp-tC(5)
Veth11
  Module :4
  VM-Name :cos-9.13-bd6-vsg13
  vNIC:Network Adapter 1
  DV-Port :4832
  VM-UUID :50 35 f0 fb 15 4a 2b 46-4c 69 4c 24 d3 ab ff 0f
  DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
  IP-Addrs:172.9.9.13,

```

Related Commands-

Command	Description
show vservice port brief	Displays a brief summary of 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* | **vlan** *vlan-num*]

Syntax Description		
ip	(Optional) Displays IP address statistics.	
<i>ip-addr</i>	MAC address.	
module	(Optional) Displays VEM module statistics.	
<i>module-num</i>	Module number.	
vlan	(Optional) Displays VLAN statistics.	
<i>vlan-num</i>	VLAN number associated with the node in the Layer 2 mode.	

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)SV1(5.2)	The name of the command is changed.
	4.2(1)SV1(5.1)	This command is changed to show the vservice statistic details
	4.0(4)SV1(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# show vservice statistics module 4
#VSN VLAN: 0, IP-ADDR: 10.10.10.205
Module: 4
#VPath Packet Statistics      Ingress      Egress      Total
Total Seen                   25           39          64
```

```

Policy Redirects                16                21                37
No-Policy Passthru             4666             3609             8275
Policy-Permits Rcvd           16                21                37
Policy-Denies Rcvd            0                 0                 0
Permit Hits                    9                18                27
Deny Hits                     0                 0                 0
Decapsulated                  16                21                37
Fail-Open                      0                 0                 0
Badport Err                   0                 0                 0
VSN Config Err                0                 0                 0
VSN State Down                2380             10765            13145
Encap Err                     0                 0                 0
All-Drops                     2380             10765            13145
Flow Notificns Sent           0
Total Rcvd From VSN           42
Non-Cisco Encap Rcvd          0
VNS-Port Drops                5
Policy-Action Err             0
Decap Err                     0
L2-Frag Sent                  0
L2-Frag Rcvd                  0
L2-Frag Coalesced             0
Encap exceeded MTU            0
ICMP Too Big Rcvd             0

#VPath Flow Statistics
Active Flows                   0 Active Connections           0
Forward Flow Create            11 Forward Flow Destroy          11
Reverse Flow Create            11 Reverse Flow Destroy          11
Flow ID Alloc                  22 Flow ID Free                   22
Connection ID Alloc            11 Connection ID Free            11
L2 Flow Create                 0 L2 Flow Destroy               0
L3 Flow Create                 0 L3 Flow Destroy               0
L4 TCP Flow Create             0 L4 TCP Flow Destroy           0
L4 UDP Flow Create             22 L4 UDP Flow Destroy           22
L4 Oth Flow Create             0 L4 Oth Flow Destroy           0
Embryonic Flow Create          0 Embryonic Flow Bloom          0
L2 Flow Timeout                0 L2 Flow Offload               0
L3 Flow Timeout                0 L3 Flow Offload               0
L4 TCP Flow Timeout            0 L4 TCP Flow Offload           0
L4 UDP Flow Timeout            59 L4 UDP Flow Offload           37
L4 Oth Flow Timeout            0 L4 Oth Flow Offload           0
Flow Lookup Hit                90 Flow Lookup Miss              22
Flow Dual Lookup               112 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 Bad Flow ID Receive           37
Flow Entry Miss                0 Flow Full Match Err           0
Bad Action Receive             0 Invalid Flow Pair             0
Invalid Connection             0
Hash Alloc                     0 Hash Free                     0
InvalFID Lookup                37 InvalFID Lookup Err           0
Deferred Delete                0

```

Related Commands

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

show vsn port vethernet

To display information about virtual Ethernet (vEth) ports, use the **show vsn port vethernet** command.

show vsn port vethernet *port-number*

Syntax Description	<i>port-number</i>	Port number. The range is from 1 to 1048575.
--------------------	--------------------	--

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

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

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

Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines	<p>You can use the following operators with the show vsn port vethernet 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 information about vEth port 2:</p> <pre>vsm# show vsn port vethernet 2 Veth : Veth2 VM Name : UD136-1 VM uuid : 42 3b e1 60 17 e6 92 c4-3b 47 f4 b7 4c a0 be 1b DV Port : 7458 DVS uuid : 90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c Flags : 0x148 VSN Data IP : 192.168.136.1 Security Profile : sp1 Org : Not set VNSP id : 1 IP addresses:</pre>
----------	--

Related Commands	Command	Description
	show vservice statistics	Displays Cisco VSG statistics.

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
	4.0(4)SV1(1)	This command was introduced.
Examples	This example shows how to enable the operational state of a port profile: <pre>vsm# configure vsm(config)# port-profile testprofile vsm(config-port-prof)# state enabled</pre>	
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 | private-vlan { host | promiscuous } | trunk }
```

```
no switchport mode { access | private-vlan { host | promiscuous } | trunk }
```

Syntax Description

access	Sets the port mode access.
private-vlan	Sets the port mode to private VLAN.
host	Sets the port mode private VLAN to host.
promiscuous	Sets the port mode private VLAN to promiscuous.
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
4.0(4)SV1(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 private-vlan host
```

This example shows how to remove the mode configuration:

```
vsm# configure
vsm(config)# interface vethernet 1
vsm(config-if)# no switchport mode private-vlan host
```

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)
---------------	--

SupportedUserRoles	network-admin
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Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.

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

```
vsm# configure
vsm(config)# interface vethernet 1
vsm(config-if)# switchport access vlan 100
```

This example shows how to remove the access mode configuration:

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

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 [**invalid-ack** | **seq-past-window** | **window-variation**]

no tcp state-checks [**invalid-ack** | **seq-past-window** | **window-variation**]

Syntax Description

invalid-ack	(Optional) Enables the invalid-ack TCP state check on the Cisco VSG. When a data packet triggers an invalid ACK, the packet is dropped by the Cisco VSG.
seq-past-window	(Optional) Enables the seq-past-window TCP state check on the Cisco VSG. When a data packet's sequence number is greater than the right edge of the TCP receiving window, the packet is dropped by the Cisco VSG.
window-variation	(Optional) Enables the window-variation TCP state check on the Cisco VSG. Any attempt to make the window smaller is disallowed.

Defaults

The default behavior of the TCP checks is as follows:

- **invalid-ack**—Enabled.
- **seq-past-window**—Enabled.
- **window-variation**—Disabled.

Command Modes

vservice global configuration (config-vservice-global)

Supported User Roles

network-admin
system-admin

Command History

Release	Modification
4.2(1)SV2(1.1)	This command was modified to add the invalid-ack , seq-past-window , and window-variation TCP state checks.
4.2(1)VSG1(4a)	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
```

This example shows how to enable the seq-past-window TCP state check:

```
n1000v(config-vservice-global)# tcp state-checks seq-past-window
```

This example shows how to disable the invalid-ack TCP state check:

```
n1000v(config-vservice-global)# no tcp state-checks invalid-ack
```

Related Commands

Command	Description
vservice global type vsg	Enters the vservice global configuration mode.
bypass asa-traffic	Configures the switch traffic to bypass the Cisco VSG nodes in a service chain.

vlan

To create a VLAN and enter the 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
4.0(4)SV1(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 the 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.

vmware port-group

To create a VMware port group, use the **vmware port-group** command. To remove the VMware port group, use the **no** form of this command.

vmware port-group *name*

no vmware port-group *name*

Syntax Description	<i>name</i>	Name of the VMware port group.
Defaults	None	
Command Modes	Port profile configuration (config-port-prof)	
SupportedUserRoles	network-admin	
Command History	Release	Modification
	4.0(4)SV1(1)	This command was introduced.
Usage Guidelines	To create the VMware port group, you must be in port profile configuration mode.	
Examples	<p>This example shows how to create a VMware port group:</p> <pre>vsm# configure vsm(config)# port-profile testprofile vsm(config-port-prof)# vmware port-group testgroup</pre> <p>This example shows how to remove the VMware port group:</p> <pre>vsm# configure vsm(config)# port-profile testprofile vsm(config-port-prof)# no vmware port-group testgoup</pre>	
Related Commands	Command	Description
	show port-profile name	Displays configuration information about a particular port profile.

vn-service ip-address

To assign a data IP address, a VLAN number, and a profile to a Cisco VSG L2 mode, use the **vn-service ip-address** command. To disable the data IP address, use the **no** form of this command.

```
vn-service ip-address ip-address vlan vlan-number [fail {close | open}] | security-profile
profile-name
```

```
no vn-service ip-address ip-address vlan vlan-number [fail {close | open}] | security-profile
profile-name
```

To assign a data IP address and a profile to a Cisco VSG Layer 3 mode, use the **vn-service ip-address** command. To disable the data IP address, use the **no** form of this command.

```
vn-service ip-address ip-address l3-mode [fail {close | open}] | security-profile profile-name
```

```
no vn-service ip-address ip-address l3-mode [fail {close | open}] | security-profile profile-name
```

Syntax Description		
<i>ip-address</i>		IP address. The format is A.B.C.D.
vlan <i>vlan-number</i>		Specifies the service VLAN number. The range is from 1 to 3967 and 4048 to 4093.
fail		(Optional) Sets the state to be in either fail close or fail open.
close		Drops packets if the Cisco VSG is down.
open		Passes packets through if the Cisco VSG is down.
security-profile <i>profile-name</i>		(Optional) Specifies the security profile name.
l3-mode		Specifies that the Cisco VSG is in Layer 3 mode.

Command Default Fail close

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

Supported User Roles network-admin

Command History	Release	Modification
	4.2(1)SV1(4)	This command is no longer supported. It was replaced by the vservice commands.
	4.2(1)SV1(5.1)	This command was changed to include the command syntax and description for the Layer 3 mode.
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

Use the **vn-service ip-address** command to configure the IP address, VLAN, and security profile for the Cisco VSG, and optionally to allow for a fail-safe configuration.

The fail mode specifies what the behavior is when the Virtual Ethernet Module (VEM) does not have connectivity to the Cisco VSG. The default fail mode is **close**, which means that the packets are dropped. The **open** fail mode means that packets are passed.

The security profile name must match one of the security profiles created on the Cisco VSG.

The IP address must match the data interface IP address on the Cisco VSG.

Examples

This example shows how to assign the IP address and VLAN number and how to specify that packets are to be passed when the Cisco VSG fails:

```
vsm# configure
Enter configuration commands, one per line. End with CNTL/Z.
vsm(config)# port-profile pP1
vsm(config-port-prof)# vn-service ip-address 209.165.200.236 vlan 2 fail open
```

Related Commands

Command	Description
show virtual-service-domain	Displays virtual service domain information.

vservice

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

```
vservice { node node_name [profile profile_name] | path svc_path_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.
path	Specifies the service path (vPath) to associate the port profile with.
<i>svc_path_name</i>	Predefined service path name.

Defaults

None

Command Modes

Port-profile configuration (config-port-prof)

Supported User Roles

Network-admin

Command History

Release	Modification
4.2(1)SV1(5.2)	This command was introduced.

Usage Guidelines

You can associate either the service node or path to the chosen port-profile entity. You need to predefine both the node as well as the path. If the node is type VSG or ASA, specifying a profile is mandatory. However, it is optional in the case of a vWAAS or ACE nodes.

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
```

This example shows how to configure a port-profile entity with a service path:

```
vsm(config-port-prof)# vservice path vpath1
```

Related Commands

Command	Description
<code>show port-profile</code>	Displays information about the port profiles.

vservice global type vsg

To enter the 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
	4.2(1)SV1(5.2)	This command was introduced.

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

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

Related Commands	Command	Description
	bypass asa-traffic	Configures the switch traffic to bypass the Cisco VSG nodes in a service chain.
	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 | asa | ace }
ip address ip-address | no ip address
adjacency { I2 { vlan vlan-number } | { vxlan bridge-domain bd-name } | I3 } | no adjacency
failmode { close | open } | no failmode

no vservice node node_name
no ip address
no adjacenc
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. The values include vsg , asa , or ace .
	vsg	Specifies the Cisco VSG service node.
	asa	Specifies the Cisco adaptive security appliance (ASA) service node.
	ace	Specifies the Cisco application control engine (ACE) 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 either Layer 2 or Layer 3 mode.
	I2	Specifies Layer 2 mode (uses a MAC address).
	vlan	For Layer 2 mode, associates a VLAN with the node.
	<i>vlan-number</i>	VLAN module number.
	vxlan	Associates a Virtual Extendable Local Area Network (VXLAN) with the service node.
	bridge-domain	Specifies a bridge-domain for the VXLAN.
	<i>bd-name</i>	Bridge domain name.
	I3	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)

vservice node

SupportedUserRoles Network-admin

Command History

Release	Modification
4.2(1)SV1(5.2)	This command was introduced.

Usage Guidelines

Use the **vservice node** command to configure a service node with an existing Cisco VSG, ASA, or ACE. That node is associated with either a port profile or a vservice path.

You can only delete inactive vservice nodes. The inactive nodes are not configured with any VMs or service paths.

Examples

This example shows how to enter the 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 12 vlan 100
vsm(config-vservice-node)# fail-mode close
```

Related Commands

Command	Description
show vservice node brief	Displays the vservice node information in brief.
show vservice node detail	Displays the vservice node information in detail.

vservice path

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

```
vservice path svc_path_name
  node node_name [profile prof_name] order order_num
```

```
no vservice path svc_path_name
  no node node_name
```

Syntax Description		
<i>svc_path_name</i>		Service path name. This name is associated with various service no nodes and port profiles to complete service chain configurations.
node		Specifies the destination node for this service path.
<i>node_name</i>		Service node name.
profile		(Optional) Specifies the destination port profile for this service path.
<i>prof_name</i>		Port profile name.
order		Specifies the order number for this service path.
<i>order_num</i>		Order number. The range is from 1 to 1000.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles Network-admin

Command History	Release	Modification
	4.2(1)SV1(5.2)	This command was introduced.

Usage Guidelines You can configure up to three service nodes in one vservice path. The supported nodes are the Cisco VSG, vWAAS, and ASA. The specified *node_name* has to be predefined. Specifying a profile is mandatory for the Cisco VSG and ASA, but not for vWAAS. For a given path, the ASA node must be configured last. You can disable a vservice path from within its mode and at the global configuration level.

Examples This example shows how to enter the vservice-path mode and specify the name of a vservice node, port profile, and the order number:

```
vsm(config)# vservice path test <----- enter the vservice-path mode
vsm(config-vservice-path)# node test1 profile test2 order 100
```

This example shows how to disable a vservice path:

```
vsm(config)# no vservice path test
```

Related Commands

Command	Description
show vservice path brief	Displays the vservice path information in brief.
show vservice path detail	Displays the vservice path information in detail.

vservice license

To assign Cisco VSG and ASA licenses to specific modules, use the **vservice license** command. To disable volatile licenses, use the **no** form of this command.

```
vservice license type {vsg | asa} {transfer | volatile} {src-module mod_no | license-pool}
{dst-module mod_no | license-pool}
```

```
[no] vservice license type {vsg | asa} volatile
```

Syntax Description

type	Specifies the service node license. The options are Cisco VSG or ASA.
vsg	Specifies the VSG license type that you can assign to a specific module.
asa	Specifies the ASA license type that you can assign to a specific module.
transfer	Specifies that the license needs to be transferred.
volatile	Specifies the volatile licenses within the network.
src-module	Specifies the source module from which the license is to be transferred.
<i>mod_no</i>	Module number. The acceptable number range is from 3 to 66.
license-pool	Specifies that the license has to be transferred from a module to the pool or from the pool to a module.
dst-module	Specifies the destination module to which the license is to be assigned.

Defaults

None

Command Modes

EXEC

Supported User Roles

Network-admin

Command History

Release	Modification
4.2(1)SV1(5.2)	This command was introduced.

Usage Guidelines

You cannot transfer volatile licenses to the license pool. You cannot specify any keyword after you enter the **volatile** keyword at the command line.

You can transfer the licenses within the modules and license pool. This command also enables (activates) the volatile licenses.

Examples

This example shows how to transfer a Cisco VSG license from a module to the license pool:

```
vsm(config)# vservice license type vsg transfer src-module 4 license-pool
```

This example shows how to transfer a Cisco ASA license from one module to another:

■ vservice license

```
vsm(config)# vservice license type asa transfer src-module 12 dst-module 34
```

This example shows how to enable volatile Cisco VSG licenses:

```
vsm(config)# vservice license type vsg volatile
```

This example shows how to disable volatile Cisco ASA licenses:

```
vsm(config)# no vservice license type asa volatile
```

Related Commands

Command	Description
show vservice license brief	Displays usage information per license type.
show vservice license detail	Displays the license type per module.

vnm-policy-agent

To enter Cisco Virtual Network Management Center (VNMC) policy agent mode, use the **vnm-policy-agent** command.

vnm-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
	4.0(4)SV1(1)	This command was introduced.

Usage Guidelines Use the Cisco VNMC policy agent configuration mode to configure policy agents.

Examples This example shows how enter policy agent mode:

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

Related Commands	Command	Description
	configure	Enters global configuration mode.

vsn type vsg global

To configure the TCP state checks, use the **vsn type vsg global** command.

vsn type vsg global

Syntax Description This command has no arguments or keywords.

Defaults TCP state checks are enabled.

Command Modes Global configuration (config)

SupportedUserRoles network-admin
system-admin

Command History	Release	Modification
	4.2(1)VSG1(4.1)	This command is no longer supported. It was replaced by the vservice global type vsg command.
	4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines Because TCP state checks in vPath are enabled by default, use the **no** form of the **tcp state-checks** command to disable the state checks.

Examples This example shows how to enter the VSN configuration submode:

```
vsm# config
vsm(config)# vsn type vsg global
vsm(config-vsn)#
```

Related Commands	Command	Description
	tcp state-checks	Enables TCP state checks in the vPath.



Cisco Virtual Security Gateway Commands

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

action

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

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

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

Command Default None

Command Modes Policy configuration (config-policy)

Supported User Roles network-admin

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

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

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

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

Related Commands	Command	Description
	rule	Enters the rule configuration submode.

attach

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to attach to a module:

```
VSG# attach module 1
Attaching to module 1 ...
To exit type 'exit', to abort type '$.'
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2010, 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 VM or network attribute (for example, src.vm.name).
	value	Designates the use of the following attribute value.
	<i>attr-value</i>	Value of a VM or network attribute (for example, engg).

Command Default None

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

Supported User Roles network-admin

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

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

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

Result: DROP, Policy: p1, Rule: r1

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

banner motd

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

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

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

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

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

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Usage Guidelines The MOTD banner is displayed on the terminal before the login prompt whenever you log in. The message is restricted to 40 lines and 80 characters per line. To create a multiple-line MOTD banner, press **Enter** before typing the delimiting character to start a new line. You can enter up to 40 lines of text. Follow these guidelines when choosing your delimiting character:

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

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

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

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

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

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

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

Related Commands

Command	Description
show banner motd	Displays the MOTD banner.

boot

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

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

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

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

Defaults None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

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

Examples This example shows how to configure a boot variable:

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

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

cd

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

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

Syntax Description

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

Defaults

bootflash:

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Usage Guidelines

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

Examples

This example shows how to change to the volatile directory:

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

Related Commands

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

cdp

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

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

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

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

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to set 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
	4.2(1)VSG1(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	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to clear AC driver statistics:</p> <pre>vsg# clear ac-driver statistics</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show ac-driver statistics</td> <td>Displays AC driver statistics.</td> </tr> </tbody> </table>	Command	Description	show ac-driver statistics	Displays AC driver statistics.
Command	Description				
show ac-driver statistics	Displays AC driver statistics.				

clear bootvar

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

clear bootvar log

Syntax Description	log Clears the boot variables log.
---------------------------	---

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

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

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

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

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

clear cdp

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

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

```
vsg# clear cdp counters
```

Related Commands

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

clear cli

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

clear cli history

Syntax Description	history Clears the CLI command history.
---------------------------	--

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

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

Examples	This example shows how to clear the 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
	4.2(1)VSG1(1)	This command was introduced.

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

Related Commands	Command	Description
	show cores	Displays the core filename.

clear counters

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

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

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

Related Commands

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

clear debug-logfile

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

clear debug-logfile *log-name*

Syntax Description	<i>log-name</i>	Name of the debug log.
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Defaults	None
-----------------	------

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

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

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

clear event-log policy_engine

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

clear event-log policy_engine

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear event-log service-path

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

clear event-log service-path

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear frame

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

clear frame statistics

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

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

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

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

Related Commands	Command	Description
	show vlan	Displays VLAN information.

clear fs-daemon

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

clear fs-daemon log

Syntax Description	log	Clears the FS daemon log.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Examples	This example shows how to clear the FS daemon log: vsg# clear fs-daemon log	
Related Commands	Command	Description
	show logging	Displays the logging configuration and the contents of the log file.

clear inspect

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

Related Commands	Command	Description
	show vsg	Displays Cisco VSG information.

clear install

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

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

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

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

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

Examples	
	This example shows how to clear all the installation logs: <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
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to clear IP adjacency statistics:

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

Related Commands	Command	Description
	show ipv6 adjacency	Displays IP information.

clear ip arp

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

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

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

clear ip arp data

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

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

clear ip arp ethernet

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

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

clear ip arp loopback

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

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

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

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

Supported User Roles	
	network-admin network-operator

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

Examples	
	This example shows how to clear ARP IP address statistics on a loopback: <pre>vsg# clear ip arp loopback 10</pre>

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

clear ip arp mgmt

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

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

clear ip arp port-channel

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear ip arp statistics

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

Related Commands	Command	Description
	show ip	Displays IP information.

clear ip arp vrf

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	show vrf	Displays VRF information.

clear ip igmp event-history

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear ip igmp snooping

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

Related Commands

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

clear ip interface

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

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

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

Related Commands

Command	Description
show ip interface	Displays IP interface information.

clear ip route

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

Examples This example shows how to clear all IP routing information:

```
vsg# clear ip route *
```

■ clear ip route

Related Commands	Command	Description
	show routing	Displays routes.

clear ip traffic

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

clear ipv6 adjacency statistics

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

clear ipv6 adjacency statistics

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	show ipv6 adjacency	Displays IPv6 statistics.

clear ipv6 icmp interface statistics

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 icmp mld groups

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 icmp mld route

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	show ipv6 icmp	Displays ICMPv6 information.

clear ipv6 nd interface statistics

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear line

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

clear line *vtty-name*

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

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

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

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

Related Commands	Command	Description
	show users	Displays active user sessions.

clear logging

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

```
vsg# clear logging logfile
```

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

clear ntp

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

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

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

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

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

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

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

clear nvram

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

clear nvram

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

Examples This example shows how to clear the NVRAM:

```
vsg# clear nvram
```

Related Commands	Command	Description
	show system resources	Displays system resources.

clear pktmgr client

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

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

Syntax Description	<i>client-counter-uuid</i> (Optional) Client counter user identification. The range is from 0 to 4294967295.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to clear a packet manager client counter:</p> <pre>vsg# clear pktmgr client 100</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>clear routing</td> <td>Clears routing information.</td> </tr> </tbody> </table>	Command	Description	clear routing	Clears routing information.
Command	Description				
clear routing	Clears routing information.				

clear pktmgr interface

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

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

clear policy-engine

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

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

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

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

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

Examples	
	This example shows how to clear policy engine statistics: <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
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to clear all process logs:

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

Related Commands

Command	Description
show processes	Displays all processes.

clear rmon

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

Related Commands	Command	Description
	show rmon	Displays RMON information.

clear role

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

clear role session

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

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

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

Examples	This example shows how to clear role session information: vsg# clear role session
----------	---

Related Commands	Command	Description
	show role	Displays role information.

clear routing

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

clear routing

Clearing ALL routes

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

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

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing event-history

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear routing ip

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

This example shows how to clear all IP routes:

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

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

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

This example shows how to clear IP routes:

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

Related Commands

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

clear routing ip event-history

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

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

clear routing ip unicast

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

clear routing ipv4

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

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

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

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

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

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

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

clear routing ipv6

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

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

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

Defaults	
None	

Command Modes	
EXEC	
Global configuration (config)	

SupportedUserRoles	
network-admin	
network-operator	

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

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

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

clear routing vrf

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

clear routing vrf *vrf-name*

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

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

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

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

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

clear routing vrf default

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to clear VRF routes:

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

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

clear routing vrf management *

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

clear routing vrf management *

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear routing vrf management

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

clear routing vrf management ip

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples

This example shows how to clear all IP unicast routes:

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

Related Commands

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

clear routing vrf management ipv4

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples

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

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

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing vrf management ipv6

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples

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

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

Related Commands

Command	Description
show routing	Displays the IP route table.

clear routing vrf management unicast

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

This example shows how to clear a specific unicast route:

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

Related Commands

Command	Description
show routing	Displays the IP route table.

clear scheduler

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

clear scheduler logfile

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

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

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

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

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

clear screen

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

clear screen

Syntax Description This command has no key words or arguments.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to clear the screen:

```
vsg# clear screen
```

Related Commands	Command	Description
	show terminal	Displays terminal configuration parameters.

clear service-path

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

This example shows how to clear service path statistics:

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

Related Commands

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

clear snmp

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

clear sockets

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to clear socket statistics:

```
vsg# clear sockets all
```

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

clear ssh

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

clear ssh hosts

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

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

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

Examples	This example shows how to clear all SSH host sessions: vsg# clear ssh hosts
-----------------	---

Related Commands	Command	Description
	show ssh	Displays SSH information.

clear system internal ac application

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

clear system internal ac ipc-stats

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

clear user

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

```
clear user user-id
```

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

Defaults	None
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

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

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

Related Commands	Command	Description
	show users	Displays user session information.

cli

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

cli var name *variable-name variable-text*

cli no var name *variable-name*

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

Defaults None

Command Modes EXEC

Supported User Roles network-admin

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

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

`$(variable-name)`

Instances where you can use variables are as follows:

- Command scripts
- Filenames

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

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

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

Examples This example shows how to define a CLI variable:

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

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

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

This example shows how to remove a CLI variable:

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

Related Commands

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

clock set

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

clock set *time day month year*

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	show clock	Displays the clock time.

condition

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

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

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

Command Default None

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

SupportedUserRoles network-admin

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

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

The following operators must have at least two attribute values:

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

Attribute values can be any of the following:

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



Note

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

Examples

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

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

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

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

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

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

Related Commands

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

cond-match-criteria

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

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

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

Defaults match-all

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

SupportedUserRoles network-admin
network-operator

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

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

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

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

configure

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

configure

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to enter configuration mode:

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

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

copy bootflash:

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

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

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

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

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

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

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

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


Related Commands

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

■ **copy core:**

copy core:

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

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

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

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

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

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

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

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

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

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

copy debug:

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

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

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

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

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

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

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

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

■ copy debug:

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

copy ftp:

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

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

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

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

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

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

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

■ **copy log:**

copy log:

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

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

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

Related Commands

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

■ `copy modflash:`

copy modflash:

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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


Related Commands

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

■ `copy nvram:`

copy nvram:

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

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

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

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

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

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

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

Related Commands

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

copy running-config

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

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

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

Defaults None

Command Modes EXEC
Global configuration

Supported User Roles network-admin

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

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

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

copy scp:

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

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

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

Defaults	
	None

Command Modes	
	EXEC

Global configuration (config)

SupportedUserRoles	
	network-admin
	network-operator

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

Examples

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

```
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: • nvram: • system: • volatile:

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

Supported User Roles	
	network-admin
	network-operator

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

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

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

copy startup-config

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin

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

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

Related Commands	Command	Description
		copy running-config

■ **copy system:**

copy system:

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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


Related Commands

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

■ **copy tftp:**

copy tftp:

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

copy tftp://file-address destination-address

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

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

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

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

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

copy volatile:

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

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

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

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

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

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

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

■ `copy volatile:`

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

debug logfile

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

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

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

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

Defaults	
Default filename:	syslogd_debugs
Default file size:	10485760 bytes

Command Modes	
EXEC	
Global configuration (config)	

SupportedUserRoles	
network-admin	
network-operator	

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

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

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

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

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

Related Commands

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

debug logging

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

debug logging

no debug logging

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

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

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

```
vsg# debug logging
```

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

```
vsg# no debug logging
```

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

delete

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

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

Examples

This example shows how to delete the contents of the bootflash directory:

```
vsg# delete bootflash:
```

Related Commands

Command	Description
copy	Copies files to directories.

dir

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

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

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

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

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

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

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

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

echo

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

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

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

Defaults Displays a blank line.

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

Table 1 Formatting Options for the echo Command

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

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

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

Examples

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

```
vsg# echo
```

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

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

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

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

Related Commands

Command	Description
run-script	Runs command scripts.

■ end

end

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

end

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

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

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

Related Commands	Command	Description
	configure	Enters configuration mode.

event

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

event manager clear counter *counter-name*

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

Defaults	Displays a blank line.
----------	------------------------

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

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

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

Examples	This example shows how to clear the event counter: <pre>vsg# event manager clear counter default</pre>
----------	---

Related Commands	Command	Description
	show event	Displays event information.

event-log archive

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

event-log archive {policy_engine | all}

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

Defaults None

Command Modes EXEC

Supported User Roles network-admin
network-operator

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

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

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

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

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

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

event-log inspect

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

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

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

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

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to inspect the event log:

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

event-log policy_engine

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

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC

Supported User Roles

network-admin

Command History

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

Examples

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

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

Related Commands

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

event-log save config

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

event-log save config

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin

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

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

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

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

event-log service-path

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

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

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

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

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin

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

Usage Guidelines

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

Examples

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

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

Related Commands

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

exit

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

exit

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

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

Examples This example shows how to exit the current mode:

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

Related Commands	Command	Description
	end	Places you in EXEC mode.

find

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

```
find filename-prefix
```

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

gunzip

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

gunzip *filename*

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

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

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

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

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

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

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

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

gzip

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

gzip *filename*

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

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

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

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

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

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

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

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

install

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

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

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

Defaults	Value
	None

Command Modes	Mode
	EXEC
	Global configuration (config)

Supported User Roles	Role
	network-admin
	network-operator

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

Examples	Example
	This example shows how to install an ISO 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* | **ethernet** *slot/port* | **loopback** *number* | **mgmt** *number* | **port-channel** *channel-number* }

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

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

Defaults None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

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

Examples This example shows how to configure an interface:

```
vsg# interface data 0
```

This example shows how to remove an interface:

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

■ interface

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

ip

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

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

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

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

Defaults 1500

Command Modes Global configuration

Supported User Roles network-admin
network-operator

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

Examples

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

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

Related Commands

Command	Description
show ip	Displays IP details.

line

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

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

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

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

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

This example shows how to enter the line configuration mode:

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

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

logging

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

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

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

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples

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

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

Related Commands

Command	Description
show logging	Displays logging information.

match

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

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

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

Command Default None

Command Modes Policy configuration (config-policy)

SupportedUserRoles network-admin

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

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

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

Attribute values can be any of the following:

- Integer
- Integer range

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

Examples

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

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

Related Commands

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

mkdir (VSG)

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

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

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

Defaults	
	None

Command Modes	
	EXEC
	Global configuration (config)

SupportedUserRoles	
	network-admin

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

Examples	
	This example shows how to create the bootflash: directory:

```
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.

no event-log all

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

no event-log all

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC

SupportedUserRoles network-admin

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

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

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

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

ntp sync-retry (VSG)

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

ntp sync-retry

no ntp sync-retry

Syntax Description This command has no arguments or keywords.

Defaults Enabled

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

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

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

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

This example shows how to disable the NTP synchronization retry:

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

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

object-group

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

object-group *group-name attribute-name*

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

password strength-check

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

password strength-check

no password strength-check

Syntax Description This command has no arguments or keywords.

Defaults This feature is enabled by default.

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

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

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

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

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

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

policy

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

policy *policy-name*

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

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

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

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

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

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

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

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

Examples

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

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

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

pwd

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

pwd

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

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

Examples This example shows how to view the current directory:

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

Related Commands	Command	Description
	cd	Changes the current directory.

reload

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

reload

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History

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

Usage Guidelines

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

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

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

Examples

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

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

Related Commands

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

reload module

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

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

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

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

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

Usage Guidelines

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

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

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

Examples This example shows how to reload Cisco VSG 2, the secondary Cisco VSG in a redundant pair:

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

Related Commands	Command	Description
	show version	Displays information about the software version.
	reload	Reboots both the primary and secondary Cisco VSG.

restart

To manually restart a component, use the **restart** command. To disable manual restart, use the **no** form of this command.

restart

no restart

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes EXEC

SupportedUserRoles network-admin

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

Usage Guidelines Do not use this command unless you are absolutely certain that there is no one else using the system.

Examples This example shows how to restart the Cisco VSG:
 vsg# **restart**

Related Commands	Command	Description
	reload	Reboots the entire device.

rmdir (VSG)

To remove a directory, use the **rmdir** command.

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

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

Defaults Removes the directory from the current working directory.

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

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

Examples This example shows how to remove the bootflash directory:
vsg# **rmdir bootflash:**

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

role

To configure a user role, use the **role** command. To delete a user role, use the **no** form of this command.

```
role { feature-group feature-group-name | name { name | network-observer } }
```

```
no role { feature-group name | [name name | network-observer] }
```

Syntax Description

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

Defaults

This feature is enabled by default.

Command Modes

Global configuration

Supported User Roles

network-admin
network-operator

Command History

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

Examples

This example shows how to configure a user role for a feature group:

```
vsg(config)# role feature-group name abc  
vsg(config-role-featuregrp)#
```

Related Commands

Command	Description
show role	Displays the role configuration.
role name	Names a user role and places you in role configuration mode for that role.

rule

To enter the configuration submode to build a firewall rule that consists of multiple conditions and actions, use the **rule** command. To remove the given rule object and all the relevant configurations, use the **no** form of this command.

rule *rule-name*

Syntax Description	<i>rule-name</i>	Rule object.
Command Default	None	
Command Modes	Global configuration (config)	
Supported User Roles	network-admin	
Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.

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

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

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

vsg(config)# rule office_app_ssh_rule
vsg(config-rule)# cond-match-criteria match-all
vsg(config-rule)# condition 1 dst.zone.name eq app_servers
vsg(config-rule)# condition 2 src.net.ip-address prefix 192.10.1.0 \
255.255.255.0
vsg(config-rule)# condition 3 dst.net.port eq 22
vsg(config-rule)# action permit
vsg(config-rule)# exit

vsg(config)# rule web_app_https_rule
vsg(config-rule)# cond-match-criteria match-all
vsg(config-rule)# condition 1 src.zone.name eq web_servers
vsg(config-rule)# condition 2 dst.zone.name eq app_servers
vsg(config-rule)# condition 3 dst.net.port member_of http_ports
vsg(config-rule)# action permit
```

```

vsg(config-rule)# exit

vsg(config)# rule app_db_rule
vsg(config-rule)# cond-match-criteria match-any
vsg(config-rule)# condition 1 src.zone.name eq app_servers
vsg(config-rule)# condition 2 dst.zone.name eq db_servers
vsg(config-rule)# action permit
vsg(config-rule)# exit

vsg(config)# rule default_deny_rule
vsg(config-rule)# cond-match-criteria match-any
vsg(config-rule)# action deny
vsg(config-rule)# action log
vsg(config-rule)# exit

```

Related Commands

Command	Description
condition	Specifies a condition statement used in a rule.
action	Specifies the actions to be executed when traffic characteristics match with the associated rule.
cond-match-criteria	Specifies the condition match criteria for a rule.

run-script (VSG)

To run a command script that is saved in a file, use the **run-script** command.

```
run-script [bootflash: [> [bootflash: | ftp: | scp: | sftp: | tftp: | volatile:] | >> [bootflash: | ftp: |
scp: | sftp: | tftp: | volatile:] | | [cut | diff | egrep | grep | head | human | last | less | no-more |
sed | sort | sscp | tr | uniq | vsh | wc | xml | begin | count | end | exclude | include] ] | volatile:
[> [bootflash: | ftp: | scp: | sftp: | tftp: | volatile:] | >> [bootflash: | ftp: | scp: | sftp: | tftp: |
volatile:] | | [cut | diff | egrep | grep | head | human | last | less | no-more | sed | sort | sscp | tr
| uniq | vsh | wc | xml | begin | count | end | exclude | include] ] ] [filename]
```

Syntax Description

bootflash:	(Optional) Indicates that the file containing the command script is located in the bootflash file system.
>	(Optional) Redirects the output to a file.
ftp:	(Optional) Designates the destination file system path; in this case, the ftp: directory.
scp:	(Optional) Designates the destination file system path; in this case, the scp: directory.
sftp:	(Optional) Designates the destination file system path; in this case, the sftp: directory.
tftp:	(Optional) Designates the destination file system path; in this case, the tftp: directory.
volatile:	(Optional) Indicates that the file containing the command script is located in the volatile file system.
>>	(Optional) Redirects the output to a file in append mode.
 	(Optional) Pipes the command output to a filter.
cut	(Optional) Prints selected parts of lines.
diff	(Optional) Shows the difference between the current and previous invocation (creates temporary files).
egrep	(Optional) Prints lines that match a pattern.
grep	(Optional) Prints lines that match a pattern.
head	(Optional) Displays only the first lines.
human	(Optional) Provides command output in human readable format if permanently set to XML; otherwise, it turns on XML for the next command.
last	(Optional) Displays only the last lines.
less	(Optional) Designates filter for paging.
no-more	(Optional) Turns off the pagination for command output.
sed	(Optional) Enables the stream editor (SED).
sort	(Optional) Enables the stream sorter.
sscp	(Optional) Enables the stream secure copy (SSCP).
tr	(Optional) Translates, squeezes, and/or deletes characters.
uniq	(Optional) Discards all but one of successive identical lines.
vsh	(Optional) Enables the shell that understands command-line interface (CLI) commands.
wc	(Optional) Enables word count, line count, and character count.
xml	(Optional) Enables output in XML format (according to .xsd definitions).

■ run-script (VSG)

begin	(Optional) Begins with the line that matches the variable included after the command keyword.
count	(Optional) Enables a count of the number of lines.
end	(Optional) Ends the display with the line that matches the string input after the command keyword.
exclude	(Optional) Excludes the lines that match the string input after the command keyword.
include	(Optional) Includes the lines that match the string input after the command keyword.
<i>filename</i>	(Optional) Name of the file containing the command script. The name is case sensitive.

Defaults

None

Command ModesEXEC
Global configuration (config)**SupportedUserRoles**network-admin
network-operator**Command History**

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to run a command script that is saved in a file called Sample:

```
vsg(config)# run-script volatile:Sample
```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Copies files.
dir	Displays the contents of the working directory.
pwd	Displays the name of the present working directory (pwd).

send

To send a message to an open session, use the **send** command.

```
send {message | session device message}
```

Syntax Description		
	<i>message</i>	Message.
	session	Specifies a specific session.
	<i>device</i>	Device type.

Defaults	
	None

Command Modes	
	EXEC Global configuration (config)

SupportedUserRoles	
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to send a message to an open session: vsg# send session sessionOne testing

Related Commands	Command	Description
	show banner	Displays a banner.

setup

To use the basic system configuration dialog for creating or modifying a configuration file, use the **setup** command.

setup

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines The Basic System Configuration Dialog assumes the factory defaults.

All changes made to your configuration are summarized for you at the completion of the setup sequence with an option to save the changes or not.

You can exit the setup sequence at any point by pressing **Ctrl-C**.

Examples This example shows how to use the **setup** command to create or modify a basic system configuration:

```
vsg# setup

Enter the domain id<1-4095>: 400

Enter HA role[standalone/primary/secondary]: standalone

[#####] 100%
```

```
---- Basic System Configuration Dialog ----
```

```
This setup utility will guide you through the basic configuration of
the system. Setup configures only enough connectivity for management
of the system.
```

```
*Note: setup is mainly used for configuring the system initially,
when no configuration is present. So setup always assumes system
defaults and not the current system configuration values.
```

Press Enter at anytime to skip a dialog. Use ctrl-c at anytime to skip the remaining dialogs.

```

Would you like to enter the basic configuration dialog (yes/no): y

Create another login account (yes/no) [n]: n

Configure read-only SNMP community string (yes/no) [n]: n

Configure read-write SNMP community string (yes/no) [n]: n

Enter the vsg name : vsg

Continue with Out-of-band (mgmt0) management configuration? (yes/no) [y]:

Mgmt0 IPv4 address :

Configure the default gateway? (yes/no) [y]: n

Configure advanced IP options? (yes/no) [n]:

Enable the telnet service? (yes/no) [y]:

Enable the ssh service? (yes/no) [n]:

Configure the ntp server? (yes/no) [n]:

Configure vem feature level? (yes/no) [n]:

Configure svcs domain parameters? (yes/no) [y]:

Enter SVS Control mode (L2 / L3) : L2
Invalid SVS Control Mode
Enter SVS Control mode (L2 / L3) : L2
Enter control vlan <1-3967, 4048-4093> : 400

Enter packet vlan <1-3967, 4048-4093> : 405

The following configuration will be applied:
vsgname vsg
telnet server enable
no ssh server enable
svcs-domain
svcs mode L2
control vlan 400
packet vlan 405
domain id 405
vlan 400
vlan 405

Would you like to edit the configuration? (yes/no) [n]:

Use this configuration and save it? (yes/no) [y]: n

```

Related Commands

Command	Description
show running-config	Displays the running configuration.

sleep

To set a sleep time, use the **sleep** command.

sleep *time*

Syntax Description	<i>time</i>	Sleep time, in seconds. The range is from 0 to 2147483647.
--------------------	-------------	--

Defaults	Sleep time is not set.
----------	------------------------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	When you set <i>time</i> to 0, sleep is disabled.
------------------	---

Examples	<p>This example shows how to set a sleep time:</p> <pre>vsg# sleep 100</pre> <p>This example shows how to disable sleep:</p> <pre>vsg# sleep 0</pre>
----------	--

Related Commands	Command	Description
	reload	Reboots the Cisco VSG.

snmp-server

To configure the Simple Network Management Protocol (SNMP) values, use the **snmp-server** command. To revert to the default, use the **no** form of this command.

```
snmp-server {aaa-user cache-timeout seconds | community word | contact | context word |
counter | enable traps | globalEnforcePriv | host | location name | mib community-map
name | protocol | source-interface | tcp-session auth | user name}
```

```
no snmp-server {aaa-user cache-timeout seconds | community word | contact | context word |
counter | enable traps | globalEnforcePriv | host | location name | mib community-map
name | protocol | source-interface | tcp-session auth | user name}
```

Syntax Description	
aaa-user	Configures an SNMP timeout value for synchronized AAA users. To revert to the default, use no snmp-server aaa-user cache-timeout . The range is from 1 to 86400.
cache-timeout <i>seconds</i>	
community <i>word</i>	Creates an SNMP community name and assigns access privileges for the community. To remove the community or its access privileges, use the no snmp-server community command. The maximum number of characters is 32.
contact	Configures the sysContact, which is the SNMP contact name. To remove or modify the sysContact, use the no snmp-server contact command.
context <i>word</i>	Configures an SNMP context name to logical network entity mapping. To remove the context, use the no snmp-server context command. The maximum number of characters is 32.
counter	Enables the SNMP cache counter and sets the timeout. To remove the counter, use the no snmp-server counter command.
enable traps	Enables SNMP notifications for traps of module notifications. To disable, use the no snmp-server enable traps command.
globalEnforcePriv	Globally enforces privacy for all SNMP users. To disable, use the no snmp-server globalEnforcePriv command.
host	Configures a host receiver for SNMPv1 or SNMPv2c traps. To remove the host, use the no snmp-server host command.
location <i>name</i>	Configures the sysLocation, which is the SNMP location name. To remove the sysLocation, use the no snmp-server location command. The maximum number of characters is 32.
mib community-map <i>name</i>	Configures the SNMP MIB community map. To remove, use the no snmp-server mib community-map command. The maximum number of characters is 32.
protocol	Enables SNMP protocol operations. To disable, use the no snmp-server protocol command.
source-interface	Configures the SNMP source interface through which notifications are sent. To remove the notifications, use the no snmp-server source-interface command.
tcp-session auth	Enables a one-time authentication for SNMP over a TCP session. To disable authentication, use the no snmp-server tcp-session auth command.
user <i>name</i>	Defines a user who can access the SNMP engine. To deny access, use the no snmp-server user command. The maximum number of characters is 32.

■ snmp-server

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to configure the AAA user synchronization timeout value:

```
vsg(config)# snmp-server aaa-user cache-timeout 6000
```

Related Commands	Command	Description
	show snmp	Displays information about SNMP.

ssh

To create a Secure Shell (SSH) session, use the **ssh** command.

```
ssh {hostname| connect | name}
```

Syntax Description	hostname	connect	name
	Hostname or user@hostname for the SSH session. The hostname is not case sensitive. The maximum number of characters is 64.	Connects to a named remote host.	Specifies the name of the SSH connection.

Defaults None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Cisco NX-OS software supports SSH version 2.

Examples This example shows how to start an SSH session:

```
vsg# ssh 10.10.1.1 vrf management
The authenticity of host '10.10.1.1 (10.10.1.1)' can't be established.
RSA key fingerprint is 9b:d9:09:97:f6:40:76:89:05:15:42:6b:12:48:0f:d6.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.10.1.1' (RSA) to the list of known hosts.
User Access Verification
Password:
```

Related Commands	Command	Description
	clear ssh session	Clears SSH sessions.
	ssh server enable	Enables the SSH server.

ssh key

To generate a secure-shell (SSH) session key with a specific security configuration, use the **ssh key** command.

```
ssh key { dsa | rsa }
```

Syntax Description	Parameter	Description
	dsa	Generates DSA security keys. There is an option to force the generation of keys, even if the previous ones are present.
	rsa number	Generates RSA security keys at a specified level of bits. The range is from 768 to 2048.

Defaults None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines Cisco NX-OS software supports SSH version 2.

Examples This example shows how to generate an SSH session key:

```
vsg(config)# ssh key rsa 770
```

Related Commands	Command	Description
	clear ssh session	Clears SSH sessions.
	ssh server enable	Enables the SSH server.

system clis

To generate an event history, use the **system clis** command. To disable the event history, use the **no** form of this command.

```
system clis event-history { client | errors | ha | nvdb | parser }
```

```
no system clis event-history { client | errors | ha | nvdb | parser }
```

Syntax Description	event-history	Generates event history logs for the command-line interface (CLI).
	client	Generates a client interaction event history log.
	errors	Generates an error event history log.
	ha	Generates a high-availability (HA) event history log.
	nvdb	Generates an NVDB and PSS event history log.
	parser	Generates a parser event history event log.

Command Default None

Command Modes Global configuration (config)

SupportedUserRoles network-administrator
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to generate an error event history log:

```
vsg# system clis event-history errors
```

Related Commands	Command	Description
	show system clis event-history	Displays the event history of the CLI servers.

system cores

To copy cores to a destination, use the **system cores** command. To disable, use the **no** form of this command.

system cores tftp: *//server@ip-address*

no system cores tftp: *//server@ip-address*

Syntax Description	Parameter	Description
	tftp:	Specifies the Trivial File Transfer Protocol (TFTP) protocol.
	<i>server</i>	Destination server.
	<i>ip-address</i>	Destination IP address.

Command Default	Default Value
	None

Command Modes	Mode
	Global configuration (config)

Supported User Roles	User Roles
	network-admin network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	Example
	This example shows how to copy cores to a destination: vsg# system cores tftp://jjones@209.165.200.229

Related Commands	Command	Description
	show system cores	Displays the core transfer option.

system default switchport

To return to system-level default values, use the **system default switchport** command. To disable the default switchport feature, use the **no** form of this command.

system default switchport [shutdown]

no system default switchport [shutdown]

Syntax Description	shutdown (Optional) Shuts down the admin state.				
Command Default	None				
Command Modes	Global configuration (config)				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to return to system-level default values:</p> <pre>vsg# system default switchport shutdown</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show system resources</td> <td>Displays system resources.</td> </tr> </tbody> </table>	Command	Description	show system resources	Displays system resources.
Command	Description				
show system resources	Displays system resources.				

system hap-reset

To reset local or remote supervisors after a high-availability (HA) failure, use the **system hap-reset** command. To disable the hap-reset feature, use the **no** form of this command.

system hap-reset

system no hap-reset

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to switch over to the standby supervisor:

```
vsg# system hap-reset
```

Related Commands	Command	Description
	show system redundancy	Displays the system redundancy status.

system health

To check the system health, use the **system health** command.

system health check bootflash

Syntax	Description
check	Runs a consistency check on the compact flash.
bootflash	Checks the internal bootflash.

Command Default None

Command Modes EXEC

Supported User Roles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to check the system health:

```
vsg# system health check bootflash
```

Related Commands	Command	Description
	show system resources	Displays system resources.

system heartbeat

To enable the system heartbeat, use the **system heartbeat** command. To disable the system heartbeat, use the **no** form of the command.

system heartbeat

system no heartbeat

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enable the system heartbeat:

```
vsg# system heartbeat
```

Related Commands	Command	Description
	system health	Checks the system health status.

system internal

To generate debug snapshots for services, use the **system internal** command.

```
system internal snapshot service service-name
```

Syntax Description	snapshot	Generates debug snapshots.
	service	Generates a debug snapshot for a service.
	<i>service-name</i>	Service name.

Command Default None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to generate debug snapshots for services:

```
vsg# system internal snapshot service
```

Related Commands	Command	Description
	show system internal	Displays all internal commands.

system jumbomtu

To set the maximum transmission units (MTU) to jumbo, use the **system jumbomtu** command.

```
system jumbomtu 9000
```

Syntax Description	9000 MTU size.				
Command Default	None				
Command Modes	Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set the MTU size to jumbo:</p> <pre>vsg# system jumbomtu 9000</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 the system resource details.</td> </tr> </tbody> </table>	Command	Description	show system resources	Displays the system resource details.
Command	Description				
show system resources	Displays the system resource details.				

system memlog

To generate a memory log in bootflash, use the **system memlog** command.

```
system memlog
```

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to generate a memory log in bootflash:

```
vsg# system memlog
```

Related Commands	Command	Description
	show system memory-alerts-log	Displays a detailed log for memory alerts.
	show system memory-status	Displays memory status information.

system memory-thresholds

To set system memory thresholds, use the **system memory-thresholds** command.

system memory-thresholds { **minor** *minor-memory-threshold* **severe** *severe memory-threshold* **critical** *critical-memory-threshold* | **threshold** **critical** **no-process-kill** }

Syntax	Description
minor	Sets the minor memory threshold.
<i>minor-memory-threshold</i>	Minor threshold as a percentage of memory. The range is from 50 to 100.
severe	Sets the severe memory threshold.
<i>severe memory-threshold</i>	Severe threshold as a percentage of memory. The range is from 50 to 100.
critical	Sets the critical memory threshold.
<i>critical-memory-threshold</i>	Critical threshold as a percentage of memory. The range is from 50 to 100.
threshold	Sets the threshold behavior.
critical	Sets the critical memory threshold.
no-process-kill	Specifies to not kill processes when out of memory.

Command Default None

Command Modes Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the memory threshold:

```
vsg# system memory-thresholds minor 60
```

Related Commands	Command	Description
	show system resources	Displays the system resources.

system pss

To shrink PSS files, use the **system pss** command.

system pss shrink

Syntax Description	shrink	Shrinks the PSS files.
Command Default	None	
Command Modes	EXEC	
SupportedUserRoles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Examples	This example shows how to shrink PSS files: vsg# system shrink pss	
Related Commands	Command	Description
	show system pss	Displays the PSS shrink status.

system redundancy

To set a system redundancy policy, use the **system redundancy** command.

system redundancy role {primary | secondary | standalone}

Syntax Description	role	Sets the redundancy role.
	primary	Specifies the primary redundant Cisco VSG.
	secondary	Specifies the secondary redundant Cisco VSG.
	standalone	Specifies no redundant Cisco VSG.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the redundancy role:

```
vsg# system redundancy role primary
```

Related Commands	Command	Description
	show system redundancy	Displays the system redundancy status.

system standby

To enable a system standby manual boot, use the **system standby** command. To disable a system standby manual boot, use the **no** form of this command.

system standby manual-boot

no system standby manual-boot

Syntax Description	manual-boot Specifies to perform a manual boot.				
Command Default	None				
Command Modes	EXEC				
Supported User Roles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set a system standby manual boot:</p> <pre>vsg# system standby manual-boot</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show system standby</td> <td>Displays the system standby manual boot option.</td> </tr> </tbody> </table>	Command	Description	show system standby	Displays the system standby manual boot option.
Command	Description				
show system standby	Displays the system standby manual boot option.				

system startup-config

To initialize or unlock the system startup configuration, use the **system startup-config** command.

```
system startup-config {init | unlock lock id}
```

Syntax Description	init	Initializes the startup configuration.
	unlock	Unlocks the startup configuration.
	lock id	Lock identification number. The range is from 0 to 65536.

Command Default None

Command Modes EXEC

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to unlock the system startup configuration:

```
vsg# system startup-config unlock 1324
```

Related Commands	Command	Description
	show startup-config	Displays startup system information.

system statistics

To reset the system statistics, use the **system statistics** command.

```
system statistics reset
```

Syntax Description

reset	Resets the system statistics.
--------------	-------------------------------

Command Default

None

Command Modes

EXEC

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to reset the system statistics:

```
vsg# system statistics reset
```

Related Commands

Command	Description
show system redundancy	Displays the system redundancy status.

system switchover

To switch over to the standby supervisor in EXEC mode, use the **system switchover** command.

system switchover

To configure a system switchover in configuration mode, use the **system switchover** command.

system switchover { ha | warm }

Syntax Description

ha	Enables high availability.
warm	Enables a warm switchover.

Command Default

None

Command Modes

EXEC
Global configuration (config)

Supported User Roles

network-admin
network-operator

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Examples

This example shows how to switch over to the standby supervisor:

```
vsg# system switchover
```

Related Commands

Command	Description
show redundancy	Displays the system redundancy status.

system trace

To configure the system trace level, use the **system trace** command.

```
system trace {mask}
```

Syntax Description	<i>mask</i> Mask name.
---------------------------	------------------------

Command Default	None
------------------------	------

Command Modes	Global configuration (config)
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SupportedUserRoles	network-admin
---------------------------	---------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to configure the system trace level: vsg# system trace dc1
-----------------	---

Related Commands	Command	Description
	system default	Configures system-level default values.

system watchdog kdgb

To enable a system watchdog, use the **system watchdog** command. To disable a system watchdog, use the **no** form of this command.

system watchdog kdgb

no system watchdog kdgb

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to enable watchdog:
vsg# **system watchdog**

Related Commands	Command	Description
	system default	Configures system-level default values.

tail

To display the end of a file, use the **tail** command.

```
tail { bootflash: filename [number] | debug: filename [number] | modflash: filename [number] | volatile: filename [number] }
```

Syntax Description		
bootflash:	Specifies the bootflash directory.	
<i>filename</i>	Name of the file.	
<i>number</i>	(Optional) Number of lines to display.	
debug:	Specifies the debug directory.	
modflash:	Specifies the modflash directory.	
volatile:	Specifies the volatile directory.	

Defaults 10 lines

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to display the last 10 lines of a file:

```
vsg# tail bootflash:startup.cfg
ip arp inspection filter marp vlan 9
ip dhcp snooping vlan 13
ip arp inspection vlan 13
ip dhcp snooping
ip arp inspection validate src-mac dst-mac ip
ip source binding 10.3.2.2 0f00.60b3.2333 vlan 13 interface Ethernet2/46
ip source binding 10.2.2.2 0060.3454.4555 vlan 100 interface Ethernet2/10
logging level dhcp_snoop 6
logging level eth_port_channel 6
```

This example shows how to display the last 20 lines of a file:

```
vsg# tail bootflash:startup.cfg 20
area 99 virtual-link 1.2.3.4
router rip Enterprise
router rip foo
```

```

    address-family ipv4 unicast
router bgp 33.33
event manager applet sdtest
monitor session 1
monitor session 2
ip dhcp snooping vlan 1
ip arp inspection vlan 1
ip arp inspection filter marp vlan 9
ip dhcp snooping vlan 13
ip arp inspection vlan 13
ip dhcp snooping
ip arp inspection validate src-mac dst-mac ip
ip source binding 10.3.2.2 0f00.60b3.2333 vlan 13 interface Ethernet2/46
ip source binding 10.2.2.2 0060.3454.4555 vlan 100 interface Ethernet2/10
logging level dhcp_snoop 6
logging level eth_port_channel 6

```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Copies files.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

telnet

To create a Telnet session, use the **telnet** command.

```
telnet {ipv4-address | hostname} [port-number | vrf vrf-name]
```

Syntax Description		
<i>ipv4-address</i>		IPv4 address of the remote device.
<i>hostname</i>		Hostname of the remote device. The name is alphanumeric, case sensitive, and has a maximum of 64 characters.
<i>port-number</i>		(Optional) Port number for the Telnet session. The range is from 1 to 65535.
vrf <i>vrf-name</i>		(Optional) Specifies the virtual routing and forwarding (VRF) name used for the Telnet session. The name is case sensitive.

Defaults	
	Port 23
	Default VRF

Command Modes	
	EXEC
	Global configuration (config)

SupportedUserRoles	
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	
	This example shows how to start a Telnet session:
	<pre>vsg# telnet 10.10.1.1 vrf management</pre>

Related Commands	Command	Description
	clear line	Clears Telnet sessions.
	telnet server enable	Enables the Telnet server.

terminal alias

To display a terminal alias, use the **terminal alias** command. To disable the terminal alias, use the **no** form of this command.

terminal alias *word persist*

no terminal alias *word persist*

Syntax Description	word	Name of the alias.
	<i>persist</i>	Alias configuration saved.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to display an alias for engineering: <code>vsg# terminal alias engineering</code>
----------	---

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal color

To enable colorization of the command prompt, command line, and output, use the **terminal color** command. To disable the terminal color, use the **no** form of this command.

terminal color [evening | persist]

no terminal color [evening | persist]

Syntax	Description
evening	Sets the screen background to black.
persist	Saves the configuration.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the colorization of the command line:
vsg# **terminal color evening persist**

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal dont-ask

To turn off the “Are you sure?” questions when a command is entered, use the **terminal dont-ask** command. To disable the terminal don’t ask question, use the **no** form of this command.

terminal dont-ask persist

no terminal dont-ask persist

Syntax Description	persist Saves the configuration.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to turn off the “Are you sure?” question when a command is entered:</p> <pre>vsg# terminal dont-ask persist</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal edit-mode

To set the edit mode to vi, use the **terminal edit-mode** command. To return the edit mode to emacs, use the **no** form of this command.

terminal edit-mode vi

no terminal edit-mode vi

Syntax Description	vi	Sets the edit mode to vi.
--------------------	----	---------------------------

Defaults	emacs
----------	-------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to set the command line edition keys: vsg# terminal edit-mode vi
----------	---

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal event-manager

To bypass the CLI event manager, use the **terminal event-manager** command.

terminal event-manager bypass

Syntax Description	bypass Bypasses the CLI event manager.
---------------------------	---

Defaults	None
-----------------	------

Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to bypass the CLI event manager: vsg# terminal event-manager bypass
-----------------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal history

To disable the recall of EXEC mode commands when in configuration mode, use the **terminal history** command. To enable recall, use the **no** form of this command.

terminal history no-exec-in-config

no terminal history no-exec-in-config

Syntax Description	no-exec-in-config Disables the recall of EXEC mode commands when in configuration mode.				
Defaults	None				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set terminal history properties:</p> <pre>vsg# terminal history no-exec-in-config</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

terminal length

To set the number of lines that appear on the terminal screen, use the **terminal length** command.

terminal length *number*

Syntax Description	<i>number</i>	Number of lines. The range is from 0 to 511.
Defaults	28 lines	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Usage Guidelines	Set <i>number</i> to 0 to disable pausing.	
Examples	This example shows how to set the number of lines that appear on the screen: 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
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to log all commands:

```
vsg# terminal log-all
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal monitor

To copy syslog output to the current terminal line, use the **terminal monitor** command.

terminal monitor

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to copy syslog output to the current terminal line:

```
vsg# terminal monitor
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal output

To display **show** command output in XML, use the **terminal output** command. To display **show** command output in text, use the **no** form of this command.

terminal output xml

no terminal output xml

Syntax Description	xml	Displays show command output in XML.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
SupportedUserRoles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Examples	This example shows how to display show command output in XML: vsg# terminal output xml	
Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal redirection-mode

To set the redirection mode, use the **terminal redirection-mode** command.

terminal redirection-mode {ascii | zipped}

Syntax Description	ascii	Sets the redirection mode to ASCII.
	zipped	Sets the redirection mode to zipped.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set the redirection mode to ASCII:
vsg# **terminal redirection-mode ascii**

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal session-timeout

To set the terminal session timeout, use the **terminal session-timeout** command.

terminal session-timeout *time*

Syntax Description	<i>time</i>	Timeout time, in seconds. The range is from 0 to 525600.
Defaults	None	
Command Modes	EXEC Global configuration (config)	
Supported User Roles	network-admin network-operator	
Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.
Usage Guidelines	Set <i>time</i> to 0 to disable terminal session timeout.	
Examples	This example shows how to set the terminal session timeout: vsg# terminal session-timeout 100	
Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal terminal-type

To specify the terminal type, use the **terminal terminal-type** command.

terminal terminal-type *type*

Syntax Description	<i>type</i>	Terminal type.
--------------------	-------------	----------------

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to specify the terminal type: <pre>vsg# terminal terminal-type vt100</pre>
----------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal tree-update

To update the main parse tree, use the **terminal tree-update** command.

terminal tree-update

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to update the main parse tree:

```
vsg# terminal tree-update
```

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal verify-only

To verify commands, use the **terminal verify-only** command.

terminal verify-only username *word*

Syntax Description	username	Specifies the username for AAA authorization.
	<i>word</i>	Username.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

Supported User Roles	network-admin network-operator
----------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to verify commands: vsg# terminal verify-only
----------	--

Related Commands	Command	Description
	show terminal	Displays the terminal configuration.

terminal width

To set the terminal width, use the **terminal width** command.

terminal width *width*

Syntax Description	<i>width</i> Sets the number of characters on a single line. The range is from 24 to 511.				
Defaults	102 columns				
Command Modes	EXEC Global configuration (config)				
SupportedUserRoles	network-admin network-operator				
Command History	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.2(1)VSG1(1)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.2(1)VSG1(1)	This command was introduced.
Release	Modification				
4.2(1)VSG1(1)	This command was introduced.				
Examples	<p>This example shows how to set the terminal width:</p> <pre>vsg# terminal width 60</pre>				
Related Commands	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>show terminal</td> <td>Displays the terminal configuration.</td> </tr> </tbody> </table>	Command	Description	show terminal	Displays the terminal configuration.
Command	Description				
show terminal	Displays the terminal configuration.				

test policy-engine

To test the policy engine on a RADIUS server or in a server group, use the **test policy-engine** command.

```
test policy-engine {simulate-pe-req | simulate-zone-req}
```

Syntax Description	simulate-pe-req	simulate-zone-req
	Simulates the policy engine lookup.	Simulates the policy engine zone.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to test the policy engine: <pre>vsg# test policy-engine simulate-zone-req</pre>
----------	---

Related Commands	Command	Description
	show policy-engine	Displays policy-engine statistics.

test-policy-engine simulate-pe-req policy

To enter the policy-engine configuration submode for unit testing or verification of a policy configuration, use the **test-policy-engine simulate-pe-req policy** command.

test-policy-engine simulate-pe-req policy *policy-name*

Syntax Description	<i>policy-name</i>	Policy to be tested or verified for configuration parameters.
Command Default	None	
Command Modes	Global configuration (config)	
SupportedUserRoles	network-admin	
Command History	Release	Modification
	4.2(1)VSG1(2)	This command was introduced.
Examples	<p>This example shows how to test the ext-company policy.</p> <pre>vsm(config)# test policy-engine simulate-pe-req policy ext-company</pre>	
Related Commands	Command	Description
	attribute	Specifies the particular attribute to be tested in the policy configuration.

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)

Supported User Roles

network-admin

Command History

Release	Modification
4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines

Use the **traceroute6** command to use IPv6 addressing for discovering the route to a device.

Examples

This example shows how to discover a route to a device:

```
vsg# traceroute 172.28.255.18 vrf management
traceroute to 172.28.255.18 (172.28.255.18), 30 hops max, 40 byte packets
 1 172.28.230.1 (172.28.230.1) 0.746 ms 0.595 ms 0.479 ms
 2 172.24.114.213 (172.24.114.213) 0.592 ms 0.51 ms 0.486 ms
 3 172.20.147.50 (172.20.147.50) 0.701 ms 0.58 ms 0.486 ms
 4 172.28.255.18 (172.28.255.18) 0.495 ms 0.43 ms 0.482 ms
```

Related Commands

Command	Description
traceroute6	Discovers the route to a device using IPv6 addressing.

username *name* password

To set a password for the username, use the **username *name* password** command.

username *name* password {**0** *password* | **5** *password* | *password*}

Syntax Description		
	<i>name</i>	Username.
	0 <i>password</i>	Specifies a password. 0 denotes that the password that follows should be set in clear text. The maximum size for <i>password</i> is 64 characters.
	5 <i>password</i>	Specifies a password. 5 denotes that the password that follows should be encrypted. The maximum size for <i>password</i> is 64 characters.
	<i>password</i>	Password in clear text. The maximum size for <i>password</i> is 64 characters.

Defaults None

Command Modes Global configuration (config)

SupportedUserRoles network-admin

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples This example shows how to set a password for the username:

```
vsg(config)# username admin password 5 q0w9e8R7
```

Usage Guidelines The Cisco VSG does not support multiple user accounts. It supports only the default **admin** user account.

Related Commands	Command	Description
	show users	Displays users.

where

To display your current context, use the **where** command.

where [**detail**]

Syntax Description	detail	(Optional) Displays detailed context information.
--------------------	--------	---

Defaults	Displays summary context information.
----------	---------------------------------------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Examples	This example shows how to display summary context information:
----------	--

```
vsg# where
      admin@firewall
```

Related Commands	Command	Description
	pwd	Displays what directory you are in.

write erase

To erase configurations in persistent memory areas, use the **write erase** command.

write erase [boot | debug]

Syntax Description	boot	(Optional) Erases the boot variable and management 0 interface configurations.
	debug	(Optional) Erases only the debug configuration.

Defaults Erases all configuration in persistent memory except for the boot variable, mgmt0 interface, and debug configuration.

Command Modes Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines When information is corrupted or unusable, use the **write erase** command to erase the startup configuration in the persistent memory. Entering this command returns the device to its initial state, except for the boot variable, mgmt0 interface, and debug configurations. To erase those configurations, specifically use the **boot** and **debug** options.

Examples This example shows how to erase the startup configuration:

```
vsg(config)# write erase
Warning: This command will erase the startup-configuration.
Do you wish to proceed anyway? (y/n) [n] y
```

This example shows how to erase the boot variable and mgmt0 interface configuration in the persistent memory:

```
vsg(config)# write erase boot
```

This example shows how to erase the debug configuration in the persistent memory:

```
vsg(config)# write erase debug
```

■ write erase

Related Commands	Command	Description
	copy running-config startup-config	Copies the running configuration to the startup configuration.
	show running-config	Displays the startup configuration.

zone

To configure a zone definition that is used to build Virtual Machine(VM)-to-zone mapping on the control plane, use the **zone** command to enter the zone configuration submode. To disable this feature, use the **no** form of this command.

zone *zone-name*

no zone *zone-name*

Syntax Description

<i>zone-name</i>	Zone object that is to be configured.
------------------	---------------------------------------

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines

Use the **zone** command to enter the zone configuration submode. The *zone-name* variable specifies a zone object.

The **no** option removes the given zone object and all relevant configurations (for example, condition statements).



Note

Attributes used in a zone condition are all neutral attributes.

Examples

This example shows how to enter the zone configuration submode:

```
vsg(config)# zone DMZ
vsg(config-zone)#
```

Related Commands

Command	Description
condition	Specifies the parameters and rules for the security zone.
cond-match-criteria	Specifies the condition match criteria for a zone.

■ zone



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
	4.2(1)VSG1(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
	4.2(1)VSG1(3.1)	The output of the show ac-driver command was changed to show the new application container statistics.
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show ac-driver** 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 application container statistics:

```
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 Initd  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
```

■ show ac-driver

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
	4.2(1)VSG1(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 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 the accounting log:

```
vsg# show accounting log
Fri Jan 21 17:19:35 2011:update:171.69.17.61@pts/0:admin:dir (SUCCESS)
Fri Jan 21 17:23:36 2011:update:10.193.73.130@ssh.3115:vsnbetauser:test vnspl
1 (SUCCESS)
Fri Jan 21 17:24:04 2011:update:10.193.73.130@ssh.3120:vsnbetauser:test vnspl
1 (SUCCESS)
```

show accounting

```

Mon Jan 24 12:50:23 2011:start:171.70.216.167@pts/1:admin:
Mon Jan 24 12:52:59 2011:update:171.70.216.167@pts/1:admin:configure (SUCCESS)
Mon Jan 24 12:55:46 2011:stop:171.70.216.167@pts/1:admin:shell terminated gracefully
Wed Feb  2 13:56:54 2011:start:171.70.225.85@pts/2:admin:
Wed Feb  2 14:20:41 2011:stop:171.70.225.85@pts/2:admin:shell terminated because
of telnet closed
Wed Feb  2 14:32:19 2011:start:171.70.225.85@pts/3:admin:
Wed Feb  2 14:39:48 2011:stop:171.70.225.85@pts/3:admin:shell terminated because
of telnet closed
Fri Feb  4 12:16:43 2011:start:171.71.29.84@pts/4:admin:
Fri Feb  4 12:17:11 2011:update:171.71.29.84@pts/4:admin:configure (SUCCESS)
Fri Feb  4 12:18:22 2011:update:171.71.29.84@pts/4:admin:configure terminal ; vnm-policy-agent (SUCCESS)
Fri Feb  4 12:20:41 2011:stop:171.71.29.84@pts/4:admin:shell terminated because
of telnet closed
Fri Feb  4 14:22:18 2011:start:171.71.29.84@pts/5:admin:
Fri Feb  4 14:23:05 2011:update:171.71.29.84@pts/5:admin:configure (SUCCESS)
Fri Feb  4 15:33:06 2011:stop:171.71.29.84@pts/5:admin:shell terminated because
of telnet closed
Fri Feb  4 17:05:05 2011:start:171.71.29.84@pts/6:admin:
Fri Feb  4 18:25:32 2011:stop:171.71.29.84@pts/6:admin:shell terminated because
of telnet closed
Mon Feb  7 14:12:19 2011:start:171.71.29.84@pts/7:admin:
Mon Feb  7 15:51:10 2011:stop:171.71.29.84@pts/7:admin:shell terminated because
of telnet closed
Mon Feb  7 16:30:10 2011:start:171.71.29.84@pts/8:admin:
Mon Feb  7 19:11:13 2011:stop:171.71.29.84@pts/8:admin:shell terminated because
of telnet closed
Wed Feb  9 14:43:26 2011:start:10.21.84.66@pts/9:admin:
Wed Feb  9 17:43:30 2011:stop:10.21.84.66@pts/9:admin:shell terminated because of
telnet closed
Wed Feb  9 18:13:10 2011:start:10.21.84.66@pts/10:admin:
Wed Feb  9 18:40:00 2011:update:10.21.84.66@pts/10:admin:configure (SUCCESS)
Wed Feb  9 19:50:37 2011:start:10.21.84.66@pts/11:admin:
Wed Feb  9 20:49:00 2011:stop:10.21.84.66@pts/10:admin:shell terminated because
of telnet closed
Wed Feb  9 22:03:36 2011:stop:10.21.84.66@pts/11:admin:shell terminated because
of telnet closed
Thu Feb 10 18:41:45 2011:start:171.71.29.84@pts/12:admin:
Thu Feb 10 18:50:50 2011:stop:171.71.29.84@pts/12:admin:shell terminated because
of telnet closed
Fri Feb 11 12:09:57 2011:start:171.71.29.84@pts/13:admin:
Fri Feb 11 16:55:21 2011:stop:171.71.29.84@pts/13:admin:shell terminated because
of telnet closed
Fri Feb 11 18:19:49 2011:start:171.71.29.84@pts/14:admin:
Fri Feb 11 18:55:54 2011:stop:171.71.29.84@pts/14:admin:shell terminated because
of telnet closed
Mon Feb 14 13:35:27 2011: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
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	You can use the following operators with the show banner 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 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** | **module** | **sup-1** | **sup-2** | **variables**]

Syntax Description	Parameter	Description
	auto-copy	(Optional) Displays whether auto copy 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
	4.2(1)VSG1(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
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
	4.2(1)VSG1(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 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 all interfaces in the CDP database:

```
vsg# show cdp all
Interface Index :83886080
Interface mgmt0:
  Operational status: up
  Config status: enabled
```

```
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
	4.2(1)VSG1(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
-----
```

```
SWITCHNAME="vsg"  
TIMESTAMP="2011-02-14-17.33.37"
```

Related Commands

Command	Description
<code>cli var</code>	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
	4.2(1)VSG1(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	<p>This example shows how to display the clock:</p>
----------	---

```
vsg# show clock detail
Mon Feb 14 17:47:44 UTC 2011
```

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
	4.2(1)VSG1(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) 2002-2011, 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

■ show copyright

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
	4.2(1)VSG1(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 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 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 | cert-enroll | clis | core | ethpm |
evmc | fm | fs-daemon | igmp | im | ip | ipconf | ipv6 | kadb | klm-rswem | logfile | module |
monitor | msp | mvsh | ntp | platform | plugin | port-channel | redundancy | res_mgr |
scheduler | security | snmp | system | tcap | ttyd | vdc | vlan | vnm | vnm-pa | 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.
cert-enroll	(Optional) Displays certificate enrollment debugging flags.
clis	(Optional) Displays CLI debugging flags.
core	(Optional) Displays core daemon debugging flags.
ethpm	(Optional) Displays ETHPM debugging flags.
evmc	(Optional) Displays EVMC debugging flags.
fm	(Optional) Displays feature manager debugging flags.
fs-daemon	(Optional) Displays FS daemon debugging flags.
igmp	(Optional) Displays PIM debugging flags.
im	(Optional) Displays IM debugging flags.
ip	(Optional) Displays IP information.
ipconf	(Optional) Displays IPCONF debugging flags.
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.
monitor	(Optional) Displays Ethernet Span debugging flags.
msp	(Optional) Displays MSP debugging flags.
mvsh	(Optional) Displays MVSH debugging flags.
ntp	(Optional) Displays NTP debugging flags.
platform	(Optional) Displays platform manager debugging flags.
plugin	(Optional) Displays plugin debugging flags.
port-channel	(Optional) Displays port-channel debugging flags.
redundancy	(Optional) Displays redundancy driver debugging flags.
res_mgr	(Optional) Displays resource manager debugging flags.
scheduler	(Optional) Displays scheduler debugging flags.
security	(Optional) Displays security debugging flags.

snmp	(Optional) Displays SNMP server debugging flags.
system	(Optional) Displays system debugging flags.
tcap	(Optional) Displays exception logger debugging flags.
ttyd	(Optional) Displays TTYD debugging flags.
vdc	(Optional) Displays VDC manager debugging flags.
vlan	(Optional) Displays VLAN manager debugging flags.
vmm	(Optional) Displays VMM debugging flags.
vnm-pa	(Optional) Displays VNM PA 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
	4.2(1)VSG1(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 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 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 | igmp | ip | ipv6}
```

Syntax Description	all	Displays all debugs filters.
	arp	Displays Address Resolution Protocol (ARP) debug filters.
	igmp	Displays Internet Group Management Protocol (IGMP) debug filters.
	ip	Displays IP information.
	ipv6	Displays IPv6 information.

Defaults	None
----------	------

Command Modes	EXEC Global configuration (config)
---------------	---------------------------------------

SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	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 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 debug filters:
----------	--

```
vsg# show debug-filter all
```

Related Commands	Command	Description
	show debug	Displays debugging flags.

show environment

To display information about the system environment, use the **show environment** command.

show environment [clock | fan | power | temperature]

Syntax Description	
clock	(Optional) Displays clock information.
fan	(Optional) Displays fan information.
power	(Optional) Displays power capacity and power distribution information.
temperature	(Optional) Displays temperature sensor information.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show environment** 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 system fan:

```
vsg# show environment fan
Fan:
-----
Fan           Model           Hw           Status
-----
ChassisFan1   0.0             0.0         Ok
ChassisFan2   0.0             0.0         None
Fan Air Filter : NotSupported
```

■ show environment

Related Commands	Command	Description
	show clock	Displays the system clock.

show event manager internal

To display event manager events, use the **show event manager internal** command.

show event manager internal [evmc | mvsh | errors]

Syntax Description	
evmc	(Optional) Displays event manager events.
mvsh	(Optional) Displays memory allocation statistics.
errors	(Optional) Displays the error log.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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 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 event manager errors:

```
vsg# show event manager internal errors
1) Event:E_DEBUG, length:253, at 232142 usecs after Wed Feb 16 15:20:07 2011

[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

2) Event:E_DEBUG, length:43, at 232138 usecs after Wed Feb 16 15:20:07 2011
[100] fu_sdb_handle_update: validation fail
```

■ show event manager internal

- 3) Event:E_DEBUG, length:55, at 232136 usecs after Wed Feb 16 15:20:07 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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 2011
    [100] fu_sync_pss_to_standby_apply:Input event not MTS msg
```

Related Commands

Command	Description
show event-log	Displays the event log.

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)
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SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(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 execute 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 internal	Displays the event manager.

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
	4.2(1)VSG1(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
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	You can use the following operators with the show file 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 confirm the existence of the bootflash directory: <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** | **stats**]

Syntax Description	
capacity	(Optional) Displays usage levels.
internal	(Optional) Displays internal hardware information.
stats	(Optional) Displays hardware statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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)
```

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
	4.2(1)VSG1(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
	4.2(1)VSG1(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
	4.2(1)VSG1(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)
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SupportedUserRoles	network-admin network-operator
--------------------	-----------------------------------

Command History	Release	Modification
	4.2(1)VSG1(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:

```
vsg# show incompatibility system bootflash:
```

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)
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Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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
	None

Command Modes	EXEC
	EXEC
	Global configuration

SupportedUserRoles	network-admin
	network-admin
	network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	You can use the following operators with the show install all 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 display a log that reports the status of the current installation:
	<pre>vsg# show install all status No installation has taken place since the last reboot.</pre>

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** | **ethernet** | **loopback** | **mac-address** | **mgmt** | **port-channel** | **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.
ethernet	(Optional) Displays Ethernet IEEE 802.3z interfaces.
loopback	(Optional) Displays the loopback interface.
mac-address	(Optional) Displays the MAC address of an interface.
mgmt	(Optional) Displays the management interface.
port-channel	(Optional) Displays port-channel interfaces.
snmp-ifindex	(Optional) Displays the Simple Network Management Protocol (SNMP) interface index.
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
	4.2(1)VSG1(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 | igmp | interface | internal | logging | netstack | process | route
| static-route | tftp | 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.
igmp		Display the IP address Internet Group Management Protocol (IGMP) status and configuration.
interface		Displays IP interface information.
internal		Displays internal IP information.
logging		Displays the IP policy logging table.
netstack		Displays the netstack local cache.
process		Displays global IP information.
route		Displays routing information.
static-route		Displays configured static routes.
tftp		Displays Trivial File Transfer Protocol (TFTP) client information.
traffic		Displays IP software processed traffic statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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
	4.2(1)VSG1(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
```

■ show ipv6

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
	4.2(1)VSG1(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
	4.2(1)VSG1(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
	4.2(1)VSG1(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: 2011 Jan 21 17:17:21 VSG129-2 %KERN-2-SYSTEM_MSG: Starting kernel... - kernel
2: 2011 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: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: sda: assuming drive cache: write through - kernel
4: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: sda: assuming drive cache: write through - kernel
5: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: CMOS: Module initialized - kernel
6: 2011 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: calling register_stun_set_domain_id() - kernel
7: 2011 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: register_stun_set_domain_id() - kernel
8: 2011 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: Successfully registered SNAPP client for SNAP=0x00000c013200 0xf1117360 - kernel
9: 2011 Jan 21 17:17:21 VSG129-2 %KERN-1-SYSTEM_MSG: STUN : Successfully created Socket - kernel
10: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : Entered - kernel
11: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : SW version is set 4.2(1)VSG1(1) - kernel
12: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
13: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: No subnet declaration for ftp0 (127.2.1.1). - dhcpd
14: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: ** Ignoring requests on ftp0. If this is not what - dhcpd
15: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: you want, please write a subnet declaration - dhcpd
16: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: in your dhcpd.conf file for the network segment - dhcpd
17: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: to which interface ftp0 is attached. ** - dhcpd
18: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
19: 2011 Jan 21 17:17:21 VSG129-2 %LOCAL7-3-SYSTEM_MSG: Not configured to listen on any interfaces! - dhcpd
20: 2011 Jan 21 17:17:21 VSG129-2 %USER-2-SYSTEM_MSG: CLIS: loading cmd files begin - clis
21: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : Entered - kernel
22: 2011 Jan 21 17:17:21 VSG129-2 %KERN-3-SYSTEM_MSG: redun_platform_ioctl : Host name is set VSG129-2 - kernel
23: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
24: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: No subnet declaration for ftp0 (127.2.1.1). - dhcpd
25: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: ** Ignoring requests on ftp0. If this is not what - dhcpd
26: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: you want, please write a subnet declaration - dhcpd
27: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: in your dhcpd.conf file for the network segment - dhcpd
28: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: to which interface ftp0 is attached. ** - dhcpd
29: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: - dhcpd
30: 2011 Jan 21 17:17:23 VSG129-2 %LOCAL7-3-SYSTEM_MSG: Not configured to listen on any interfaces! - dhcpd
```



```

31: 2011 Jan 21 17:17:23 VSG129-2 %MODULE-5-ACTIVE_SUP_OK: Supervisor 1 is activ
e (serial: T5056BB0038)
32: 2011 Jan 21 17:17:23 VSG129-2 %PLATFORM-5-MOD_STATUS: Module 1 current-statu
s is MOD_STATUS_ONLINE/OK
33: 2011 Jan 21 17:17:26 VSG129-2 %USER-2-SYSTEM_MSG: CLIS: loading cmd files en
d - clis
34: 2011 Jan 21 17:17:26 VSG129-2 %USER-2-SYSTEM_MSG: CLIS: init begin - clis
35: 2011 Jan 21 17:17:44 VSG129-2 %USER-2-SYSTEM_MSG: Invalid feature name eth-p
ort-sec - clis
36: 2011 Jan 21 17:18:00 VSG129-2 %POLICY_ENGINE-5-POLICY_ACTIVATE_EVENT: Policy
pl is activated by profile spl
37: 2011 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: mgmt0 is DOWN in vdc 1
38: 2011 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: mgmt0 is UP in vdc 1
39: 2011 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: data0 is DOWN in vdc 1
40: 2011 Jan 21 17:18:00 VSG129-2 %IM-5-IM_INTF_STATE: data0 is UP in vdc 1
41: 2011 Jan 21 17:18:00 VSG129-2 %POLICY_ENGINE-5-POLICY_COMMIT_EVENT: Commit o
peration SUCCESSFUL
42: 2011 Jan 21 17:18:00 VSG129-2 %VDC_MGR-2-VDC_ONLINE: vdc 1 has come online
43: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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: 2011 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 [**internal** | **peer-status** | **peers** | **rts-update** | **source** | **statistics** | **timestamp-status**]

Syntax Description	
internal	(Optional) Displays internal NTP information.
peer-status	(Optional) Displays the status of all the peers.
peers	(Optional) Displays all the peers.
rts-update	(Optional) Displays the status of RTS.
source	(Optional) Displays the source IP address.
statistics	(Optional) Displays NTP statistics.
timestamp-status	(Optional) Displays the status of the time-stamp check.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines 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
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines	<p>You can use the following operators with the show password 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 enable password strength check:</p> <pre>vsg# show password strength-check Password strength check enabled vsg#</pre>
----------	--

Related Commands	Command	Description
	show aaa	Display authentication and authorization information.

show platform internal

To display platform manager information, use the **show platform internal** command.

show platform { **all** | **errors** | **event-history** | **info** | **mem-stats** | **msgs** }

Syntax Description		
all		Displays platform information.
errors		Displays the platform manager error log.
event-history		Displays platform manager event history.
info		Displays platform manager internal information.
mem-stats		Displays platform manager memory allocation statistics.
msgs		Displays platform manager message logs.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines You can use the following operators with the **show platform** 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 platform manager memory statistics:

```
VSG129-2# show platform internal mem-stats
Inside pfm_cli_show_memstats
sending mts msg 18
```

```
Private Mem stats for UUID : Malloc track Library(103) Max types: 5
-----
```

■ **show platform internal**

Curr alloc: 414 Curr alloc bytes: 19803(19k)

Private Mem stats for UUID : Non mtrack users(0) Max types: 81

Curr alloc: 149 Curr alloc bytes: 1322797(1291k)

Private Mem stats for UUID : libsdwrap(115) Max types: 22

Curr alloc: 11 Curr alloc bytes: 1448(1k)

Private Mem stats for UUID : Associative_db library(175) Max types: 14

Curr alloc: 6 Curr alloc bytes: 200(0k)

Private Mem stats for UUID : Event sequence library(158) Max types: 4

Curr alloc: 0 Curr alloc bytes: 0(0k)

Private Mem stats for UUID : Associative_db utils library(174) Max types: 4

Curr alloc: 0 Curr alloc bytes: 0(0k)

Private Mem stats for UUID : libfsrv(404) Max types: 11

Curr alloc: 0 Curr alloc bytes: 0(0k)

Private Mem stats for UUID : FSM Utils(53) Max types: 68

Curr alloc: 136 Curr alloc bytes: 7760(7k)

Private Mem stats for UUID : Platform Manager(24) Max types: 25

Curr alloc: 0 Curr alloc bytes: 0(0k)

Curr alloc: 716 Curr alloc bytes: 1352008 (1320k)

Related Commands

Command	Description
show system internal mem-alerts-log	Displays the memory alert log.

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)
---------------	---------------------------------------

Supported User Roles	network-admin network-operator
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Command History	Release	Modification
	4.2(1)VSG1(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
	4.2(1)VSG1(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
<code>show system resources</code>	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)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(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 2011

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 | m4route-mem | m6route-mem | monitor-session | port-channel |
u4route-mem | u6route-mem | vlan | vrf ]
```

Syntax Description	internal	(Optional) Displays resource manager information
	m4route-mem	(Optional) Displays m4route-mem information.
	m6route-mem	(Optional) Displays m6route-mem information.
	monitor-session	(Optional) Displays monitor session information.
	port-channel	(Optional) Displays port-channel information.
	u4route-mem	(Optional) Displays u4route-mem information.
	u6route-mem	(Optional) Displays u6route-mem 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
	4.2(1)VSG1(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
m4route-mem	58	58	0	58	58
m6route-mem	8	8	0	8	8

Related Commands

Command	Description
show system resources	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
	4.2(1)VSG1(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
<code>show users</code>	Displays users.

show running-config

To display running configurations, use the **show running-config** command.

```
show running-config [aaa | all | am | arp | cdp | cert-enroll | diff | exclude | expand-port-profile
| icmpv6 | igmp | interface | ip | l3vm | monitor | ntp | object-group group-name | policy
policy-name | rule rule-name | security | snmp | vdc-all | vlan | vshd | zone zone-name]
```

Syntax Description

aaa	(Optional) Displays the authentication, authorization, and accounting (AAA) configuration.
all	(Optional) Displays the current operating configuration with defaults.
am	(Optional) Displays AM information.
arp	(Optional) Displays Address Resolution Protocol (ARP) information.
cdp	(Optional) Displays the Cisco Discovery Protocol (CDP) configuration.
cert-enroll	(Optional) Displays the configuration of the certificates.
diff	(Optional) Displays the difference between the running configuration and the startup configuration.
exclude	(Optional) Excludes displaying specified configurations when performing the show running-config command.
expand-port-profile	(Optional) Displays the port profile.
icmpv6	(Optional) Displays ICMPv6 information.
igmp	(Optional) Displays Internet Group Management Protocol (IGMP) information.
interface	(Optional) Displays interface configurations.
ip	(Optional) Displays IP information.
l3vm	(Optional) Displays Layer 3 Virtual Machine information.
monitor	(Optional) Configures Ethernet SPAN sessions.
ntp	(Optional) Displays Network Time Protocol (NTP) information.
object-group	(Optional) Displays the object-group configuration.
<i>group-name</i>	Object group name.
policy	(Optional) Displays the policy configuration.
<i>policy-name</i>	Policy name.
rule	(Optional) Displays the rule configuration.
<i>rule-name</i>	Rule name.
security	(Optional) Displays the security configuration.
snmp	(Optional) Displays the Simple Network Management Protocol (SNMP) configuration.
vdc-all	(Optional) Displays the virtual device context (VDC) configuration.
vlan	(Optional) Displays the VLAN configuration.
vshd	(Optional) Displays the running configuration for VSHD.
zone	(Optional) Displays the running configuration for zones.
<i>zone-name</i>	Zone name.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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: Wed Feb 23 11:23:41 2011

version 4.2(1)VSG1(1)
no feature telnet
no feature http-server

username adminbackup password 5 $1$0ip/C5Ci$oOdx7oJS1BCFpNRmQK4na. role network
-operator
username admin password 5 $1$nDBYx.EE$aOQn09aSYpclPxcZM9CS3. role network-admin
username vsnbetauser password 5 $1$WBkomPFW$RlOqE7fU2ZS/D4yd7bx/L. role network
-admin

banner motd #Nexus VSN#

ssh key rsa 2048
ip domain-lookup
ip domain-lookup
switchname VSG129-2
snmp-server user admin auth md5 0x49381b1f90fcb52a70b55a0bbf05d032 priv 0x49381b
1f90fcb52a70b55a0bbf05d032 localizedkey engineID 128:0:0:9:3:0:0:0:0:0
snmp-server user vsnbetauser auth md5 0x272e8099cab7365fd1649d351b953884 priv 0x
272e8099cab7365fd1649d351b953884 localizedkey engineID 128:0:0:9:3:0:0:0:0:0

vrf context management
```

show running-config

```

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

interface data0
  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
vnm-policy-agent
  registration-ip 0.0.0.0
  shared-secret *****
  log-level

```

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)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(3)	The output of the show service-path connection was changed to show that the VLAN column displays VXLAN for any traffic coming from or going to the VXLAN VM machine.
	4.2(1)VSG1(2)	This command was modified to show more organization and detail.
	4.2(1)VSG1(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:
```

show service-path connection

```

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    vxlan permit     PpOoSas

```

Related Commands

Command	Description
show svcs	Displays SVS information.

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)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(3.1)	The output of the show service-path statistics command was changed to show the service path statistics.
	4.2(1)VSG1(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
```

show service-path statistics

```

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

```

Related Commands

Command	Description
show sv	Displays SVS information.

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	Parameter	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)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(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
```

■ show snmp

SNMP USERS

User	Auth	Priv(enforce)	Groups
------	------	---------------	--------

NOTIFICATION TARGET USERS (configured for sending V3 Inform)

User	Auth	Priv
------	------	------

admin (EngineID 128:0:0:9:3:0:0:0:0:0:0)	md5	des
---	-----	-----

vsnbetauser (EngineID 128:0:0:9:3:0:0:0:0:0:0)	md5	des
---	-----	-----

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}

Syntax Description		
	client	Displays client socket information.
	connection	Displays socket connections information.
	internal	Displays internal socket information.
	statistics	Displays socket statistics.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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
```

■ **show sockets**

```

    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 | name | server}
```

Syntax Description	key	Displays the SSH keys.
	name	Displays the preestablished master SSH connections.
	server	Displays the status of SSH on the server.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines 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 Oct 8 16:49:02 2010

ssh-rsa AAAAB3NzaC1yc2EAAAABIwAAQEAtL6+T2oK41T1ed1Xus/eY6FChVxGdDA1T9B3pC06MWst
6+Wh4Sw3Ibpoe2uIuZE9qZj1nKLMWkReu1o1XLCJlGG3QjkVUA2CMLYP6o/+fUoMZIPSyQFQk+3JwTFu
UR7uaa6OkATAr35unSnaHPKkYyv7C2S+I/H2nilY+Gbncv9D2tjjsFJIOMIeIa8w5EdedMSnxOYg9ynm
9rV+Jql48mvs1AKo23eSkzJT2grZu6z3d8DboiEHvrkPR/8Dwum9BXX7pM9p4813Dae51RuW92H/wRqs
v0u6Cyex6c6uE2f3jo4yU4tOMTCbyu2O+1Xz/AsmM+gUZ1CvxrHhHgHpqw==

bitcount:2048
fingerprint:
1d:1f:75:3c:6b:41:32:c8:0a:87:40:56:10:cb:2b:e9
*****
```

■ show ssh

```
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 | am | arp | cdp | cert-enroll | exclude | expand-port-profile | icmpv6 |
igmp | interface | ip | l3vm | log | monitor | ntp | security | snmp | vdc-all | vshd]
```

Syntax	Description
aaa	(Optional) Displays the authentication, authorization, and accounting (AAA) configuration.
am	(Optional) Displays AM information.
arp	(Optional) Displays Address Resolution Protocol (ARP) information.
cdp	(Optional) Displays the Cisco Discovery Protocol (CDP) configuration.
cert-enroll	(Optional) Displays the configuration of the certificates configuration.
diff	(Optional) Displays the difference between the running configuration and startup configuration.
expand-port-profile	(Optional) Displays the port profile.
icmpv6	(Optional) Displays Internet Control Message Protocol Version 6 (ICMPv6) information.
igmp	(Optional) Displays Internet Group Management Protocol (IGMP) 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.
monitor	(Optional) Displays Ethernet Switched Port Analyzer (SPAN) sessions.
ntp	(Optional) Displays Network Time Protocol (NTP) information.
security	(Optional) Displays the security configuration.
snmp	(Optional) Displays the Simple Network Management Protocol (SNMP) configuration.
vdc-all	(Optional) Displays the virtual device context (VDC) 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
4.2(1)VSG1(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 2011
!Startup config saved at: Tue Nov 30 19:23:55 2010

version 4.2(1)VSG1(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

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
vnm-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 ssh { clis | cores | error-id | exception-info | internal | pss | redundancy | resources | standby
          | uptime }
```

Syntax Description	clis	Description
	clis	Displays the command-line interface (CLI) server.
	cores	Displays the core transfer option.
	error-id	Displays the system errors.
	exception-info	Displays the exception log.
	internal	Displays the internal system information.
	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.

Defaults None

Command Modes EXEC
Global configuration (config)

Supported User Roles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

Usage Guidelines 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 | brief | cert-enroll | cli | clis | details | dhcp | epp |
ethport | ha | icmpv6 | im | include-time | internal | ip | ipv6 | l3vm | module | npacl | ntp |
pktmgr | platform | port | port-channel | routing | snmp | sockets | sys-mgr | time-optimized
| vdc | vsd | 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.
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.
details	(Optional) Displays detailed information about troubleshooting.
dhcp	(Optional) Displays detailed information about Dynamic Host Configuration Protocol (DHCP).
epp	(Optional) Displays detailed information about EPP.
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 it took to gather technical support information.
internal	(Optional) Displays internal troubleshooting information.
ip	(Optional) Displays IP information.
ipv6	(Optional) Displays IPv6 information.
l3vm	(Optional) Display virtual routing and forwarding (VRF) information.
module	(Optional) Displays information about modules.
npacl	(Optional) Displays information about NPACL.
ntp	(Optional) Displays information about the Network Time Protocol (NTP).
pktmgr	(Optional) Displays packet manager information.
platform	(Optional) Displays platform information.
port	(Optional) Displays port manager information.
port-channel	(Optional) Displays port-channel information.
routing	(Optional) Displays information about routing.
snmp	(Optional) Displays information about the Simple Network Management Protocol (SNMP).
sockets	(Optional) Displays information about sockets.
sys-mgr	(Optional) Displays information about system manager.
time-optimized	(Optional) Gathers tech-support faster.

vdc	(Optional) Displays information about the virtual device context (VDC).
vsd	(Optional) Displays information about VSD.
xml	(Optional) Displays information about XML.

Defaults None

Command Modes EXEC
Global configuration (config)

SupportedUserRoles network-admin
network-operator

Command History	Release	Modification
	4.2(1)VSG1(1)	This command was introduced.

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 2011
   [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 2011
   [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 2011
   [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 2011
   [REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_INTERNAL_STATE(1386), Id:0X02ECF0FB, Ret:S
   UCESS
     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 2011
   [REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_REDUNDANCY_STATUS(2499), Id:0X02ECF0F9, Re
   t: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 2011
   [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 2011
   [REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_INTERNAL_STATE(1386), Id:0X02ECF0F5, Ret:S
   UCESS
     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 2011
   [REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_REDUNDANCY_STATUS(2499), Id:0X02ECF0F3, Re
   t: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 2011
   [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 2011
   [REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_INTERNAL_STATE(1386), Id:0X02ECF0EF, Ret:S
   UCESS
     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 2011
   [REQ] Opc:MTS_OPC_SYSMGR_CLI_SHOW_REDUNDANCY_STATUS(2499), Id:0X02ECF0ED, Re
   t: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 2011
   [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 2011
 [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 2011
 [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 2011
 [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 2011
 [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 2011
 [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 2011
 [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 2011
 [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 2011
 [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 2011
 [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 2011
 [RSP] Opc:MTS_OPC_EEM_CFG_SYNC(1701), Id:0X02ECEABB, Ret:SUCCESS
```

■ **show tech-support**

```

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 2011
[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 2011
[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 2011
[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 2011
[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 2011
[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           |
|-------------------|-----------------------|
| <b>show debug</b> | 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)

**Supported User Roles** network-admin  
network-operator

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(1) | This command was introduced. |

**Usage Guidelines** You can use 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 info**]

| Syntax Description | internal info | (Optional) Displays internal terminal information. |
|--------------------|---------------|----------------------------------------------------|
|--------------------|---------------|----------------------------------------------------|

| Defaults | None |
|----------|------|
|----------|------|

| Command Modes | EXEC<br>Global configuration (config) |
|---------------|---------------------------------------|
|---------------|---------------------------------------|

| SupportedUserRoles | network-admin<br>network-operator |
|--------------------|-----------------------------------|
|--------------------|-----------------------------------|

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(1) | This command was introduced. |

| Usage Guidelines | <p>You can use the following operators with the <b>show terminal</b> command:</p> <ul style="list-style-type: none"> <li>• &gt;—Redirects the output to a file.</li> <li>• &gt;&gt;—Redirects the output to a file in append mode.</li> <li>•  —Pipes the command output to a filter.</li> </ul> |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| 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
```

```

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                   |
|-----------------------|-------------------------------|
| <b>show processes</b> | Displays process information. |

# show user-account

To display information about user accounts, use the **show user-account** command.

```
show user-account [user-account-name]
```

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| <b>Syntax Description</b> | <i>user-account-name</i> (Optional) User account name. |
|---------------------------|--------------------------------------------------------|

|                 |      |
|-----------------|------|
| <b>Defaults</b> | None |
|-----------------|------|

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Command Modes</b> | EXEC<br>Global configuration (config) |
|----------------------|---------------------------------------|

|                           |                                   |
|---------------------------|-----------------------------------|
| <b>SupportedUserRoles</b> | network-admin<br>network-operator |
|---------------------------|-----------------------------------|

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(1) | This command was introduced. |

|                         |                                                                                                                                                                                                                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage Guidelines</b> | <p>You can use the following operators with the <b>show user-account</b> command:</p> <ul style="list-style-type: none"> <li>• &gt;—Redirects the output to a file.</li> <li>• &gt;&gt;—Redirects the output to a file in append mode.</li> <li>•  —Pipes the command output to a filter.</li> </ul> |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                 |                                                                                                                                                                                                                                                                                                                              |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Examples</b> | <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                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(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                               |
|------------------|--------------------------|-------------------------------------------|
|                  | <b>show user-account</b> | Displays information about user accounts. |

# show version

To display the software version, use the **show version** command.

```
show version [build-info | image | internal]
```

| Syntax Description | build-info | (Optional) Displays software build information.                        |
|--------------------|------------|------------------------------------------------------------------------|
|                    | image      | (Optional) Displays software image information.                        |
|                    | internal   | (Optional) Displays software compatibility results between two images. |

| Defaults | None |
|----------|------|
|----------|------|

| Command Modes | EXEC<br>Global configuration (config) |
|---------------|---------------------------------------|
|---------------|---------------------------------------|

| SupportedUserRoles | network-admin<br>network-operator |
|--------------------|-----------------------------------|
|--------------------|-----------------------------------|

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(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 build-info
```

| Related Commands | Command      | Description                                              |
|------------------|--------------|----------------------------------------------------------|
|                  | show install | Displays the software install impact between two images. |

# show vnm-pa

To display the Virtual Network Management Center (VNMC) policy agent, use the **show vnm-pa** command.

**show vnm-pa** [**status** | **tech-support**]

| Syntax Description  |                                                    |
|---------------------|----------------------------------------------------|
| <b>status</b>       | (Optional) Displays the policy agent status.       |
| <b>tech-support</b> | (Optional) Displays technical support information. |

**Defaults** None

**Command Modes** EXEC  
Global configuration (config)

**SupportedUserRoles** network-admin  
network-operator

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(1) | This command was introduced. |

**Usage Guidelines** You can use the following operators with the **show vnm-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 vnm-pa status
VNM 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]
```

|                           |                                           |
|---------------------------|-------------------------------------------|
| <b>Syntax Description</b> | <i>port-name</i> (Optional) DV port name. |
|---------------------------|-------------------------------------------|

|                 |      |
|-----------------|------|
| <b>Defaults</b> | None |
|-----------------|------|

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Command Modes</b> | EXEC<br>Global configuration (config) |
|----------------------|---------------------------------------|

|                           |                                   |
|---------------------------|-----------------------------------|
| <b>SupportedUserRoles</b> | network-admin<br>network-operator |
|---------------------------|-----------------------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>          |
|------------------------|----------------|------------------------------|
|                        | 4.2(1)VSG1(1)  | This command was introduced. |

|                         |                                                                                                                                                                                                                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage Guidelines</b> | <p>You can use the following operators with the <b>show vsg dvport</b> command:</p> <ul style="list-style-type: none"> <li>&gt;—Redirects the output to a file.</li> <li>&gt;&gt;—Redirects the output to a file in append mode.</li> <li> —Pipes the command output to a filter.</li> </ul> |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                 |                                                                                                                                                                                                                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Examples</b> | <p>This example shows how to display information about a DV port:</p> <pre>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</pre> |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| <b>Related Commands</b> | <b>Command</b>             | <b>Description</b>                      |
|-------------------------|----------------------------|-----------------------------------------|
|                         | <b>show vsg ip-binding</b> | Displays information about IP bindings. |



# show vsg ip-binding

To display a list of Virtual Machine (VM) IP addresses and associated 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)

**SupportedUserRoles** network-admin  
network-operator

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(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                                   |
|------------------|----------------------------------|-----------------------------------------------|
|                  | <b>show vsg security-profile</b> | 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** [*vnspp-name* | **detail** | **table**]

| Syntax Description |                                                                        |
|--------------------|------------------------------------------------------------------------|
| <i>vnspp-name</i>  | (Optional) Virtual network security profile (VNSP) name.               |
| <b>detail</b>      | (Optional) Displays more details about the Cisco VSG security profile. |
| <b>table</b>       | (Optional) Displays security profile information.                      |

**Defaults** None

**Command Modes** EXEC  
Global configuration (config)

**SupportedUserRoles** network-admin  
network-operator

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(1) | This command was introduced. |

**Usage Guidelines** 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 VMs that are using the security-profile in addition to security-profile information. 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
```

```
Virtual Machines:
sg-pg-vm206
sg-pg-redhat
```

**Related Commands**

| <b>Command</b>           | <b>Description</b>          |
|--------------------------|-----------------------------|
| <b>show policy stats</b> | 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                                                                                                                                                                                              |
|-----------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | 4.2(1)VSG1(2) | This command was modified. The optional parameter <i>vm-uuid</i> was removed. The new version of the command does not accept any parameters and always displays information for all the virtual machines. |
|                 | 4.2(1)VSG1(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 : 421c5ae4-51c3-5dd9-60fa-a50cb04ed0ea
VM attributes :
 cluster-name :
 host-name : 10.193.73.154
 name : win2k3
```

| Related Commands | Command         | Description                     |
|------------------|-----------------|---------------------------------|
|                  | <b>show vsg</b> | 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*

|                             |                                       |                                                         |
|-----------------------------|---------------------------------------|---------------------------------------------------------|
| <b>Syntax Description</b>   | <i>name</i>                           | Name or partial name of a VM in your Cisco VSG network. |
| <b>Defaults</b>             | None                                  |                                                         |
| <b>Command Modes</b>        | EXEC<br>Global configuration (config) |                                                         |
| <b>Supported User Roles</b> | network-admin<br>network-operator     |                                                         |
| <b>Command History</b>      | <b>Release</b>                        | <b>Modification</b>                                     |
|                             | 4.2(1)VSG1(2)                         | 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 VMs. The VM 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 name linux-204:

```
vsg# show vsg vm name linux-204
VM uuid : 421ceac2-3b3f-67f9-b71c-3755d2c8cabe
VM attributes :
 cluster-name : cluster23
 host-name : 10.193.77.204
 name : linux-204-184
 os-fullname : red hat enterprise linux 4 (32-bit)
 os-hostname :
 res-pool : resources
 tools-status : not-installed
 vapp-name :
DV Port(s) :
 DV Port : 272::1c7b1c50-f1b7-9a71-259d-820f4713a4b1
```

■ **show vsg vm name**

```

Security Profile : SP-DC1@root/Cisco-Tenant1
Port Profile : profile_App2
IP Addresses :
 20.100.201.184
DV Port : 240::1c7b1c50-f1b7-9a71-259d-820f4713a4b1
Security Profile : SP-App1@root/Cisco-Tenant1
Port Profile : profile_App1
IP Addresses :
 10.100.201.184
Zone(s) :
 zone_linux_204@root/Cisco-Tenant1

```

**Related Commands**

| Command         | Description                     |
|-----------------|---------------------------------|
| <b>show vsg</b> | 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
```

|                           |             |                                  |
|---------------------------|-------------|----------------------------------|
| <b>Syntax Description</b> | <i>uuid</i> | Designates the name of the UUID. |
|---------------------------|-------------|----------------------------------|

|                 |      |
|-----------------|------|
| <b>Defaults</b> | None |
|-----------------|------|

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Command Modes</b> | EXEC<br>Global configuration (config) |
|----------------------|---------------------------------------|

|                             |                                   |
|-----------------------------|-----------------------------------|
| <b>Supported User Roles</b> | network-admin<br>network-operator |
|-----------------------------|-----------------------------------|

|                        |                |                              |
|------------------------|----------------|------------------------------|
| <b>Command History</b> | <b>Release</b> | <b>Modification</b>          |
|                        | 4.2(1)VSG1(2)  | This command was introduced. |

|                         |                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------|
| <b>Usage Guidelines</b> | 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 421cefd6-29d1-4c8e-e563-2c3a4d58cd31
VM uuid : 421cefd6-29d1-4c8e-e563-2c3a4d58cd31
VM attributes :
 cluster-name :
 host-name : 10.193.77.206
 name : linux-206-185
 os-fullname : red hat enterprise linux 4 (32-bit)
 os-hostname :
 resource-pool : resource-pool1
 tools-status : not-installed
 vapp-name :
 Zone(s) :
```

|                         |                |                                 |
|-------------------------|----------------|---------------------------------|
| <b>Related Commands</b> | <b>Command</b> | <b>Description</b>              |
|                         | 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                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(2) | This command was introduced. |

**Examples** This example shows how to display Cisco VSG zones:

```
vsg(config-vnm-policy-agent)# show vsg zone
Zone : centos5.3_2_VEM2@root/tenant_d3337/dc1
Virtual Machines :
 centos5.3_2_vem2

Zone : tenant_3337_zonename1@root/tenant_d3337
Virtual Machines :

Zone : deletetest@root/tenant_d3337
Virtual Machines :
 centos5.3_1
 centos5.3_vlan100
 centos5.3_2_vem2
 centos5.3_2_vem1
 win2003entr2-32_vlan150_100_split
 centos5.2
 centos5.3_1_vem2
 centos5.3_3_vem1_clone
 centos5.3_3_vem2_clone
```

| 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** [**logging** | **status**]

| Syntax Description |                                                                                 |
|--------------------|---------------------------------------------------------------------------------|
| <b>logging</b>     | (Optional) Displays the logging configuration and the contents of the log file. |
| <b>status</b>      | (Optional) Displays XML agent information.                                      |

**Defaults** None

**Command Modes** EXEC  
Global configuration (config)

**SupportedUserRoles** network-admin  
network-operator

| Command History | Release       | Modification                 |
|-----------------|---------------|------------------------------|
|                 | 4.2(1)VSG1(1) | This command was introduced. |

**Usage Guidelines** 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                             |
|------------------|-------------------------|-----------------------------------------|
|                  | <b>show http-server</b> | Displays the HTTP server configuration. |

■ show xml server



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