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## CHAPTER 1

# Cisco Nexus 1000V Series Switch Commands

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This chapter provides information about the Cisco Virtual Security Gateway (VSG) related commands on the Cisco Nexus 1000V Series switch and the Cisco Nexus 1010 networking appliance.

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## capability l3-vn-service

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

**capability l3-vn-service**

**no capability l3-vn service**

### Syntax Description

l3-vn-service	Configure vmknic to carry l3-vn-service traffic.
---------------	--

### Defaults

None

### Command Modes

Port-profile configuration (config-port-prof)  
network-admin

### Command History

Release	Modification
4.2.1SV1(5.1)	This command was introduced.

### Usage Guidelines

If you are configuring a port profile for **l3-vn-service**, you must first configure the port profile in switchport mode.

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

### Examples

This example shows how to configure a port profile to be used with l3-vn-service:

```
n1000v# config t
n1000v(config)# port-profile testprofile
n1000v(config-port-prof)# switchport mode access
n1000v(config-port-prof)# capability l3-vn-service
n1000v(config-port-prof)#
```

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

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

### Related Commands

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

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## clear vsn connection

To clear Cisco VSG connections, use the **clear vsn connection** command.

```
clear vsn connection [module module-number]
```

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

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

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

Related Commands	Command	Description
	show vsn	Displays Cisco VSG information.

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## clear vsn statistics

To clear Cisco VSG statistics, use the **clear vsn statistics** command.

```
clear vsn statistics [module module-number | vlan vlan-number ip ip-address [module
module-number]]
```

### Syntax Description

<b>module</b>	(Optional) Clears a module.
<i>module-number</i>	Module number. The range of values is from 3 to 66.
<b>vlan</b>	(Optional) Clears a VLAN.
<i>vlan-number</i>	VLAN number.
<b>ip</b>	(Optional) Clears a device at a specific IP address.
<i>ip-address</i>	IP address. The format is A.B.C.D.

### Defaults

None

### Command Modes

EXEC  
Global configuration (config)

### Supported User Roles

network-admin  
network-operator

### Command History

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

### Examples

This example shows how to clear Cisco VSG statistics:

```
vsm# clear vsn statistics
```

### Related Commands

Command	Description
<b>show vsn</b>	Displays Cisco VSG information.

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## 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
	<b>show running-config</b>	Displays the running configuration.
	<b>show running-config diff</b>	Displays the differences between the running configuration and the startup configuration.
	<b>show startup-config</b>	Displays the startup configuration.
	<b>write erase</b>	Erases the startup configuration in the persistent memory.

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## 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** { **critical** | **debug0** | **debug1** | **debug2** | **debug3** | **debug4** | **info** | **major** | **minor** | **warn** }

### Syntax Description

<b>critical</b>	Sets the logging level to critical.
<b>debug0</b>	Sets the logging level to debug 0.
<b>debug1</b>	Sets the logging level to debug 1.
<b>debug2</b>	Sets the logging level to debug 2.
<b>debug3</b>	Sets the logging level to debug 3.
<b>debug4</b>	Sets the logging level to debug 4.
<b>info</b>	Sets the logging level to information.
<b>major</b>	Sets the logging level to major.
<b>minor</b>	Sets the logging level to minor.
<b>warn</b>	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
<b>vnm-policy-agent</b>	Enables the Cisco VNMC policy agent configuration mode.

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## org

To create a Cisco VNMC organization (domain), use the **org** command. To delete a Cisco VNMC organization, use the **no** form of the command.

**org** *organization-name*

**no org** [*organization-name*]

Syntax Description	<i>organization-name</i>	Organization name. The range of values 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	<p>This example shows how to create an organization:</p> <pre>vsm# <b>configure</b> Enter configuration commands, one per line. End with CNTL/Z. vsm(config)# <b>port-profile pP1</b> vsm(config-port-prof)# <b>org orgpP1</b> vsm(config-port-prof)#</pre>
----------	---

Related Commands	Command	Description
	<b>vn-service</b>	Sets the IP address for a virtual firewall.

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## ping vsn

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

**ping vsn** {**ip** *vsn-ip-addr* [**vlan** *vsn-vlan-num*] | **all**} {**src-module** {*module-num* | **all** | **vpath-all**} [**timeout** *secs*] [**count** *count*]}

### Syntax Description

<b>ip</b>	Designates that a specific IP address is to be pinged.
<i>vsn-ip-addr</i>	IP address of the specific VSN.
<b>vlan</b>	(Optional) Designates a specific VLAN is to be pinged.
<i>vsn-vlan-num</i>	Specific VLAN number.
<b>all</b>	Indicates that all VSNs must be pinged.
<b>src-module</b>	Designates the source module for the ping.
<i>module-num</i>	Module number for the source path.
<b>vpath all</b>	Designates that all source vPaths will be used.
<b>timeout</b>	(Optional) Designates a timeout.
<i>secs</i>	Duration of the pinging operation in seconds.
<b>count</b>	(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)VSG(3.1)	The output of the <b>ping-vsn</b> 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
```



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```

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 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 src-module vpath-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)

```

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)

```

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```

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
<b>ping</b>	Activates a signal to verify connections with other devices on a path.

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## 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:**

<b>Syntax Description</b>	<b>bootflash:</b>	Designates the policy agent image local URL as bootflash.
<b>Command Default</b>	None	
<b>Command Modes</b>	VNMC policy agent configuration (config-vnm-policy-agent)	
<b>SupportedUserRoles</b>	network-admin	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(4)SV1(1)	This command was introduced.
<b>Examples</b>	<p>This example shows how to designate the local URL that contains the policy agent image:</p> <pre>vsm# <b>configure</b> vsm(config)# <b>vnm-policy-agent</b> vsm(config-vnm-policy-agent)# <b>policy-agent-image bootflash:</b></pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>vnm-policy-agent</b>	Enables the VNM policy agent configuration mode.

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## 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# <b>pop file1</b>
----------	--

Related Commands	Command	Description
	<b>push</b>	Pushes the current mode onto the stack.

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## 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*

<b>Syntax Description</b>	<i>profile-name</i>	Port profile name. The range of valid values is from 1 to 80.
<b>Defaults</b>	None	
<b>Command Modes</b>	Global configuration (config)	
<b>SupportedUserRoles</b>	network-admin	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(4)SV1(1)	This command was introduced.
<b>Usage Guidelines</b>	The port profile name must be unique for each port profile.	
<b>Examples</b>	<p>This example shows how to create a port profile called AccessProf:</p> <pre>vsm# <b>configure</b> vsm(config)# <b>port-profile AccessProf</b> vsm(config-port-prof)#</pre> <p>This example shows how to remove the port profile called AccessProf:</p> <pre>vsm# <b>configure</b> vsm(config)# <b>no port-profile AccessProf</b> vsm(config)#</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show port-profile</b>	Displays information about the port profiles.

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## 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# <b>push file1</b>
----------	--

Related Commands	Command	Description
	<b>pop</b>	Pops the current mode off the stack.

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## 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** *ip-address*

Syntax Description	<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 209.165.200.233
vsm(config-vnm-policy-agent)#
```

Related Commands	Command	Description
	<b>vnm-policy-agent</b>	Enters the Cisco VNMC policy agent configuration mode.

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## shared-secret

To set the shared secret password for communication between the Cisco Virtual Security Gateway (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** *shared-secret-password*

<b>Syntax Description</b>	<i>shared-secret-password</i> Shared secret password. The range of valid values is from 1 to 64. You must use at least one uppercase character.				
<b>Command Default</b>	None				
<b>Command Modes</b>	Cisco VNMC policy agent configuration mode (config-vnm-policy-agent)				
<b>Supported User Roles</b>	network-admin				
<b>Command History</b>	<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.				
<b>Examples</b>	<p>This example shows how to set the shared secret password:</p> <pre>vsm# <b>configure</b> vsm(config)# <b>vnm-policy-agent</b> vsm(config-vnm-policy-agent)# <b>shared-secret Password123</b> vsm(config-vnm-policy-agent)#</pre>				
<b>Related Commands</b>	<table border="1"> <thead> <tr> <th>Command</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><b>vnm-policy-agent</b></td> <td>Enters VNM policy agent configuration mode.</td> </tr> </tbody> </table>	Command	Description	<b>vnm-policy-agent</b>	Enters VNM policy agent configuration mode.
Command	Description				
<b>vnm-policy-agent</b>	Enters VNM policy agent configuration mode.				



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## 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]
```

Syntax	Description
<b>aaa</b>	(Optional) Displays the Authentication, Authorization and Accounting (AAA) configuration.
<b>aclmgr</b>	(Optional) Displays the running configuration for Access Control List (ACL) manager.
<b>all</b>	(Optional) Displays the current operating configurations.
<b>am</b>	(Optional) Displays Application Management (AM) information.
<b>arp</b>	(Optional) Displays Address Resolution Protocol (ARP) information.
<b>cdp</b>	(Optional) Displays the Cisco Discovery Protocol (CDP) configuration.
<b>diff</b>	(Optional) Displays the difference between the running and startup configurations.
<b>exclude</b>	(Optional) Excludes the running configuration of specified features.
<b>expand-port-profile</b>	(Optional) Displays port profile information.
<b>icmpv6</b>	(Optional) Displays Internet Control Message Protocol (ICMPv6) information.
<b>igmp</b>	(Optional) Displays Internet Group Management Protocol (IGMP) information.
<b>interface</b>	(Optional) Displays interface configurations.
<b>ip</b>	(Optional) Displays Internet Protocol (IP) information.
<b>ipqos</b>	(Optional) Displays the running configuration for the IP Quality of Service (QoS) manager.
<b>ipv6</b>	(Optional) Displays IPv6 information.
<b>l3vm</b>	(Optional) Displays Layer 3 Virtual Machine (L3VM) information.
<b>license</b>	(Optional) Displays the licensing configuration.
<b>monitor</b>	(Optional) Displays Ethernet Switched Port Analyzer (SPAN) session information.
<b>ntp</b>	(Optional) Displays Network Time Protocol (NTP) information.
<b>port-profile</b>	(Optional) Displays port-profile configurations.
<b>port-security</b>	(Optional) Displays port-security configurations.
<b>radius</b>	(Optional) Displays the Remote Authentication Dial In User Service (RADIUS) configuration.
<b>rpm</b>	(Optional) Displays RPM information.
<b>security</b>	(Optional) Displays the security configurations.
<b>snmp</b>	(Optional) Displays the Simple Network Management Protocol (SNMP) configuration.
<b>vdc-all</b>	(Optional) Displays all Virtual Device Context (VDC) configurations.

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<b>vlan</b>	(Optional) Displays virtual large area network (VLAN) information.
<b>vshd</b>	(Optional) Displays the running configuration for virtual shared hardware device (VSHD).

**Command Default** None

**Command Modes** EXEC

**SupportedUserRoles** network-admin  
network-operator

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.2(1)SV1(5.1)	
	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$0ip/C5Ci$oOdx7oJSlBCFpNRmQK4na. 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
```

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```
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
  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
  spl
  no shutdown
  state enabled
port-profile type vethernet vm-clear-vlan65
  vmware port-group
  switchport mode access
  switchport access vlan 65
```

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```

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

```

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```

description VSG134-1,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 VSG129-2,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 VSG136-1,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
svs mode L2
svs connection vcenter
protocol vmware-vim
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:/vnmc-vsmpa.1.0.0.512.bin
log-level
vsm#

```

---

**Related Commands**

Command	Description
<b>show aaa</b>	Displays AAA information.

---

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## 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)

---

**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 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
	<b>vnm-policy-agent</b>	Enters the Cisco VNMC policy agent configuration mode.

---

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## show vsn brief

To display a brief amount of information about the Cisco Virtual Security Gateway (VSG), use the **show vsn brief** command.

**show vsn 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
	4.1(2)SV1(5.1)	The output of the <b>show vsn brief</b> was changed to show the information about the Cisco VSG sin L2 and L3 mode.
	4.0(4)SV1(1)	This command was introduced.

**Usage Guidelines** You can use the following operators with the **show vsn 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 brief information about the Cisco VSGs:

```
vsm# show vsn brief
```

```

VLAN      IP-ADDR      MAC-ADDR      FAIL-MODE  STATE  MODULE
501       10.1.1.44    00:50:56:8f:5a:85  Close     Up     9
-         10.1.1.40    -              Close     Up     11,12
vsm#
```

In this example, VSG 10.1.1.44 is in L2 mode and VSG 10.1.1.40 is in L3 mode.

**■** show vsn brief

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**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show vsn port vethernet</b>	Displays information about the Cisco VSG.



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## show vsn connection

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

```
show vsn connection [vlan vlan-num | ip ip-addr | module module-num]
```

Syntax Description	Field	Description
	<b>vlan</b>	(Optional) Displays vlan keyword.
	<i>vlan-num</i>	Specifies the VLAN number for the VSG service vlan.
	<b>ip</b>	(Optional) Displays connections to a specific IP address.
	<i>ip-addr</i>	Specifies the IP keyword.
	<b>module</b>	(Optional) Displays module keyword.
	<i>module-num</i>	Specifies the module number to see all the VSN connections on the module.

**Command Default** None

**Command Modes** EXEC

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

Command History	Release	Modification
	4.2.1SV1(5.1)	The output of the <b>show vsn connection command</b> was modified to show that the VLAN column is now referred as V(X)LAN. In 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 vsn 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 vsn connection
```

Legend:

```
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
```

■ **show vsn connection**

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```

O - conn offloaded to vPath at src      o - conn offloaded to vPath at dst
P - policy at src                       p - policy at 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)      v - vlan segment number
x - IP-fragment connection
VSG IP 200.20.201.183 VLAN 3756
#Module 3
Proto SrcIP[:Port]          DstIP[:Port]          V(X)LAN Action Flags      Bytes
icmp 172.31.2.117           172.31.2.113         v-3726 permit PpOo       65149126

VSG IP 10.10.11.202 VLAN 3756
#Module 3
Proto SrcIP[:Port]          DstIP[:Port]          V(X)LAN Action Flags      Bytes
icmp 172.31.2.91           172.31.2.92          3070 permit po           980
vsm#

```

#### Related Commands

Command	Description
<b>show vsn port vethernet</b>	Displays port information.

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## show vsn detail

To display detailed information about the Cisco Virtual Security Gateway (VSG), use the **show vsn detail** command.

### show vsn detail

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** EXEC

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

Command History	Release	Modification
	4.2.1SV1(5.1)	The output of the <b>show vsn detail</b> 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 vsn 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
```

```
show vsn detail
```

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```
#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

#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
<b>show vsn port vethernet</b>	Displays information about the Cisco VSG.

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## 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*

<b>Syntax Description</b>	<i>port-number</i>	Port number. The range is from 1 to 1048575.
<b>Command Default</b>	None	
<b>Command Modes</b>	EXEC	
<b>SupportedUserRoles</b>	network-admin network-operator	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(4)SV1(1)	This command was introduced.

**Usage Guidelines** You can use the following operators with the **show vsn port vethernet** 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 vEth port 2:

```
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 : spl
Org            : Not set
VNSP id        : 1
IP addresses:
vsm#
```

■ show vsn port vethernet

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---

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show vsn statistics</b>	Displays Cisco VSG statistics.

---

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## show vsn statistics

To display Cisco VSG statistics, use the **show vsn statistics** command.

**show vsn statistics [ip | module | vlan]**

Syntax Description	ip	(Optional) Displays IP statistics.
	<b>mode</b>	(Optional) Displays module statistics.
	<b>vlan</b>	(Optional) Displays VLAN statistics.

**Command Default** None

**Command Modes** EXEC

**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 vsn 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 vsn statistics module 3
#VSN VLAN: 64, IP-ADDR: 192.168.129.2
Module: 3
#VPath Packet Statistics      Ingress      Egress      Total
Total Seen                    8249         24572       32821
Policy Redirects              7796         23260       31056
No-Policy Passthru            441          1267        1708
Policy-Permits Rcvd           7796         23260       31056
Policy-Denies Rcvd            0             0            0
Permit Hits                    10           45           55
Deny Hits                     0             0            0
Decapsulated                   7796         23260       31056
Fail-Open                      0             0            0
Badport Err                    0             0            0
VSN Config Err                 0             0            0
ARP Resolve Err                2             0            2
```

```
show vsn statistics
```

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```

Encap Err                                0                0                0
All-Drops                                2                0                2
Total Rcvd From VSN                                31056
Non-Cisco Encap Rcvd                                0
VNS-Port Drops                                0
Policy-Action Err                                0
Decap Err                                      0
L2-Frag Sent                                  0
L2-Frag Rcvd                                  0
L2-Frag Coalesced                             0

#VPath Flow Statistics
Active Flows                                0 Active Connections                                0
Forward Flow Create                         7799 Forward Flow Destroy                             7799
Reverse Flow Create                         7799 Reverse Flow Destroy                             7799
Flow ID Alloc                               15598 Flow ID Free                                     15598
Connection ID Alloc                         7799 Connection ID Free                             7799
L2 Flow Create                              0 L2 Flow Destroy                                0
L3 Flow Create                              4 L3 Flow Destroy                                4
L4 TCP Flow Create                          0 L4 TCP Flow Destroy                             0
L4 UDP Flow Create                          15594 L4 UDP Flow Destroy                             15594
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                             5 L3 Flow Offload                                2
L4 TCP Flow Timeout                         0 L4 TCP Flow Offload                             0
L4 UDP Flow Timeout                         23393 L4 UDP Flow Offload                             31054
L4 Oth Flow Timeout                         0 L4 Oth Flow Offload                             0
Flow Lookup Hit                             23314 Flow Lookup Miss                               15598
Flow Dual Lookup                            38912 L4 TCP Tuple-reuse                              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                             0
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                             0 InvalFID Lookup Err                             0
Deferred Delete                              0
vsm#
```

---

**Related Commands**

Command	Description
<code>show vsn port vethernet</code>	Displays information about the Cisco VSG.

---



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## 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 of the command.

**state enabled**

**no state enabled**

Syntax	Description
<b>enabled</b>	Enables or disables the port profile.

Defaults
Disabled

Command Modes
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 enable the operational state of a port profile:

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

Related Commands	Command	Description
	<b>show port-profile</b>	Displays port profile information.

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## 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

<b>access</b>	Sets the port mode access.
<b>private-vlan</b>	Sets the port mode to private VLAN.
<b>host</b>	Sets the port mode private VLAN to host.
<b>promiscuous</b>	Sets the port mode private VLAN to promiscuous.
<b>trunk</b>	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
vsm(config-if)#
```

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
vsm(config-if)#
```

### Related Commands

Command	Description
<b>show interface</b>	Displays interface information.

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## 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*

<b>Syntax Description</b>	<i>vlan-id</i>	VLAN identification number. The range of values is from 1 to 3967.
---------------------------	----------------	--

<b>Defaults</b>	Access mode is not set.
-----------------	-------------------------

<b>Command Modes</b>	Interface configuration (config-if) Port profile configuration (config-port-prof)
----------------------	--

<b>SupportedUserRoles</b>	network-admin
---------------------------	---------------

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	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
vsm(config-if)#
```

This example shows how to remove the access mode configuration:

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

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show interface</b>	Displays interface information.

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## tcp state-checks

To configure the switch to perform TCP state checks, use the **tcp state-checks** command. To disable TCP state checks, use the **no** form of this command.

**tcp state-checks**

**no tcp state-checks**

---

**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(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 TCP state checks submode:

```
vsm# config
vsm(config)# tcp state-checks
vsm(config-vsn) #
```

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## 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}
```

<b>Syntax Description</b>	<i>id</i>	VLAN identification number. The range is from 1 to 4094.
	<b>dot1Q tag native</b>	Specifies an IEEE 802.1Q virtual LAN.
<b>Defaults</b>	VLAN 1	
<b>Command Modes</b>	Global configuration (config)	
<b>Supported User Roles</b>	network-admin	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(4)SV1(1)	This command was introduced.
<b>Usage Guidelines</b>	Specify a VLAN range by using a dash. For example, 1-9 or 20-30.	
<b>Examples</b>	<p>This example shows how to create a VLAN and enter the VLAN configuration mode:</p> <pre>vsm# <b>configure</b> vsm (config)# <b>vlan 100</b> vsm (config-vlan)#</pre> <p>This example shows how to remove a VLAN:</p> <pre>switch# <b>configure</b> switch(config)# <b>no vlan 100</b> switch(config)#</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show vlan</b>	Displays the VTP VLAN status.

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## 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*

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

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## 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 the 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 L3 mode, use the **vn-service ip-address** command. To disable the data IP address, use the **no** form of the 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.
<b>vlan</b> <i>vlan-number</i>		Specifies the service VLAN number. The range of values is from 1 to 3967 and 4048 to 4093.
<b>fail</b>		(Optional) Sets states to be in either fail close or fail open.
<b>close</b>		Drops packets if the Cisco VSG is down.
<b>open</b>		Passes packets through if the Cisco VSG is down.
<b>security-profile</b> <i>profile-name</i>		(Optional) Specifies the security profile name.
<b>l3-mode</b>		Specifies that the Cisco VSG is in L3 mode.

**Command Default** Fail close

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

**SupportedUserRoles** network-admin

Command History	Release	Modification
	4.2(1)SV1(5.1)	This command was changed to include the command syntax and description for the L3 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.

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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
vsm(config-port-prof)#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show</b>	Displays virtual service domain information.
<b>virtual-service-domain</b>	



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## 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
	<b>configure</b>	Enters global configuration mode.

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## vsn type vsg global

To enter the tcp state-checks configuration submode, 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(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
	<b>tcp state-checks</b>	Enables TCP state checks in the vPath.

---