



# 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 Cloud Services Platform networking appliance.

# capability l3-vservice

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

**capability l3-vservice**

**no capability l3-vservice**

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

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**Defaults** None

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

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**SupportedUserRoles** network-admin

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

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

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

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

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

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

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# 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
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Command Modes	EXEC Global configuration (config)
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SupportedUserRoles	network-admin network-operator
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Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples	This example shows how to clear Cisco VSG connections: <pre>vsm# clear vservice connection</pre>
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Related Commands	Command	Description
	<b>show vservice</b>	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 | ip <ip-address>]
```

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

**Defaults** None

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

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

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

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

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

Related Commands	Command	Description
	<b>show vservice</b>	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
	5.2(1)SM1(5.1)	This command was introduced.

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

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

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

Related Commands	Command	Description
	<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.

# 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
5.2(1)SM1(5.1)	This command was introduced.

## Examples

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

```
vsm# configure
vsm(config)# 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.

# 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 is from 1 to 251.
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Command Default	None
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Command Modes	Port profile configuration (config-port-prof)
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SupportedUserRoles	network-admin
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Command History	Release	Modification
	5.2(1)SM1(5.1)	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 that contains only the software engineering organization has access to system resources only within that organization. However, a locale that contains the engineering organization has access to the resources for both the software engineering and hardware engineering organizations.</p>
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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 root/tenant1</b> vsm(config-port-prof)#</pre>
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Related Commands	Command	Description
	<b>vservice</b>	Sets the IP address for a virtual firewall.

# ping vsn

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

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

Syntax Description		
<b>ip</b>		Designates that a specific IP address is to be pinged.
<i>ip-addr</i>		IP address of the specific VSN.
<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 are to 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
	5.2(1)SM1(5.1)	This command was introduced.

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

**Examples** This example shows how to ping a Cisco VSG:

```
vsm# ping ?
  <CR>
  A.B.C.D or Hostname  IP address of remote system
  WORD                Enter Hostname
  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.
- src-module : Source modules to originate ping request from.
  - o all : All online modules.
  - o vpath-all : All modules having VMs associated to port-profiles that has vn-service defined.
  - o <module-num> : A online module number.
- timeout <secs> : Time to wait for response from VSNS, in seconds. Default is 1 sec.
- count : Number of ping packets to be sent.
  - o <count> : Specifies number of ping packets to be sent. Default is 5. Min 1, Max 2147483647.
  - o unlimited : Send ping packets until command is stopped.

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

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

Various forms:

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

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

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

Errors:

```
VSN response timeout - VSN is down, not reachable or not responding.
VSN ARP not resolved - VEM couldn't resolve MAC address of VSN.
no response from VEM - VEM is not sending ping response to VSM. Can happen when VEM
is down and VSM not detected it yet.
```

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

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

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

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

```

ping vsn 10.1.1.44 vlan 0 from module 9 10 11 12, seq=3 timeout=1-sec
  module(usec)   : 9(284) 10(426) 11(331) 12(387)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=3 timeout=1-sec
  module(usec)   : 9(414) 10(663) 11(644) 12(698)

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

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

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

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

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

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

vsm#

```

**Related Commands**

Command	Description
<b>ping</b>	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:**

<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>Supported User Roles</b>	network-admin	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	5.2(1)SM1(5.1)	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.

# 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.
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Command Default	None
-----------------	------

Command Modes	EXEC
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SupportedUserRoles	network-admin
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Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples	This example shows how to restore from a file called file1:
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```
vsm# pop file1
```

Related Commands	Command	Description
	<b>push</b>	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*

<b>Syntax Description</b>	<i>profile-name</i>	Port profile name. The number of characters 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>
	5.2(1)SM1(5.1)	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></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></pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show port-profile</b>	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
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Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

Examples	This example shows how to push file1 onto the stack:
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```
vsm# push file1
```

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

# registration-ip

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

**registration-ip** *ip-address*

**no registration-ip**

Syntax Description	<i>ip-address</i>	Service registry IP address. The format is A.B.C.D.
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Command Default	None
-----------------	------

Command Modes	Cisco VNMC policy agent configuration mode (config-vnm-policy-agent)
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Supported User Roles	network-admin
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Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

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

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

Related Commands	Command	Description
	<b>vnm-policy-agent</b>	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**

<b>Syntax Description</b>	<i>shared-secret-password</i> Shared secret password. The number of characters is from 1 to 64. You must use at least one uppercase character.
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<b>Command Default</b>	None
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<b>Command Modes</b>	Cisco VNMC policy agent configuration mode (config-vnm-policy-agent)
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<b>SupportedUserRoles</b>	network-admin
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Command History	Release	Modification
	5.2(1)SM1(5.1)	This command was introduced.

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

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

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



# show org port brief

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

**show org port brief** [**port-profile** *pp\_name* | **vethernet** *veth\_num*] [**module** *module\_num*]

## Syntax Description

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

## Command Modes

EXEC

## Supported User Roles

network-admin  
network-operator

## Command History

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

## Usage Guidelines

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

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

## Examples

This example shows how to display the port profile information:

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

## 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>adjmgr</b>	(Optional) Displays adjacency manager information.
<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>cert-enroll</b>	(Optional) Displays certificate enrollment information.
<b>diff</b>	(Optional) Displays the difference between the running and startup configurations.
<b>eem</b>	
<b>exclude</b>	(Optional) Excludes the running configuration of specified features.
<b>exclude-provision</b>	(Optional) Excludes the provision information.
<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>network</b>	(Optional) Displays network 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>spanning-tree</b>	(Optional) Displays spanning-tree protocol information.
<b>vdc-all</b>	(Optional) Displays all Virtual Device Context (VDC) configurations.
<b>vlan</b>	(Optional) Displays virtual large area network (VLAN) information.
<b>vrf</b>	(Optional) Displays Virtual Routing and Forwarding (VRF) information.
<b>vshd</b>	(Optional) Displays the running configuration for virtual shared hardware device (VSHD).
<b>aclog</b>	Displays aclog information.
<b>vservice</b>	Displays virtual service node.

**Command Default** None

**Command Modes** EXEC

**SupportedUserRoles** network-admin  
network-operator

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	5.2(1)SM1(5.1)	This command was introduced.

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

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

**Examples** This example shows how to display the running configuration:

```
vsm-hpv# show running-config

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

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

hostname VSM-hpv

no feature telnet
feature network-segmentation-manager

username admin password 5 $1$KxvwqWcb$8PqeCVrfy6QDy9nau.hBf. role network-admin
```

```

banner motd #Nexus 1000V Switch
#

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

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

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

```

```

no shutdown
guid d41c34d0-7c93-4fec-92ef-1f4383276b28
state enabled
publish port-profile
port-profile type vethernet veth-1
org root/Tenant-1
vservice node VSG-138 profile SP11
no shutdown
guid 14fa09d3-6cf8-4c55-b7f5-ad0ae4e4c8bd
state enabled
publish port-profile
port-profile type vethernet veth-2
org root/Tenant-1/VDC-1/App-1/Tier-1
vservice node VSG-138 profile SP14
no shutdown
guid 4be00543-2965-4d4e-be39-2f0ed5c606e6
state enabled
publish port-profile
port-profile type vethernet veth-3
org root/Tenant-1/VDC-1/App-1/Tier-1
vservice node VSG-N1010 profile SP11
no shutdown
guid 335f49a3-95e8-4c88-b078-7a5424f4537b
state enabled

```

**Related Commands**

Command	Description
show aaa	Displays AAA information.

# show running-config vservice node

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

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

## Syntax Description

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

## Command Default

None

## Command Modes

EXEC

## Supported User Roles

network-admin  
network-operator

## Command History

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

## Usage Guidelines

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

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

## Examples

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

```
vsm# show running-config vservice node

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

Related Commands	Command	Description
	vservice node	Configures a service node.

# show 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
	5.2(1)SM1(5.1)	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.



# show vservice brief

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

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

## Syntax Description

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

## Command Default

None

## Command Modes

EXEC

## Supported User Roles

network-admin  
network-operator

## Command History

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

## Usage Guidelines

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

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

## Examples

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

```
vsm# show vservice brief
```

```
-----
                                License Information
-----
Type          In-Use-Lic-Count  UnLicensed-Mod
```

## show vservice brief

```
vsg          2
asa          0
```

-----  
Node Information  
-----

ID	Name	Type	IP-Address	Mode	State	Module
2	VSG-N1010	vsg	10.1.0.200	13	Unreach	4,
3	VSG-Root	vsg	10.1.0.150	13	Unreach	4,

-----  
Path Information  
----------  
Port Information  
-----

```
PortProfile:veth-10
Org:root/Tenant-1/VDC-1/App-1/Tier-1
Node:VSG-N1010(10.1.0.200)           Profile(Id):SP11(16)
Veth Mod VM-Name                    vNIC
  3   4  vm-ub-11

PortProfile:veth-3
Org:root/Tenant-1/VDC-1/App-1/Tier-1
Node:VSG-Root(10.1.0.150)          Profile(Id):SP100(16)
Veth Mod VM-Name                    vNIC
  5   4  vm-win-16
  6   4  vm-ub-10

PortProfile:veth-3
Org:root/Tenant-2/VDC-2/App-2/Tier-2
Node:VSG-Root(10.1.0.150)          Profile(Id):SP100(22)
Veth Mod VM-Name                    vNIC
  4   4  vm-win-15
```

# show vservice connection

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

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

Syntax	Description
<b>port-profile</b>	Filters the port information for the specified port-profile name.
port-profile	Specifies the port-profile name.
<b>service-profile</b>	Filters the port information for the specified service-profile name.
service_profile	Specifies the service-profile name.
<b>node-name</b>	(Optional) Displays service node name.
node-name	Specifies the service node.
<b>node-l3</b>	Displays the port information for the Layer 3 adjacency of a node.
<b>node-ipaddr</b>	Displays the port information for the specified IP address of the node.
ip-addr	Specifies the IP address of the service node.
<b>module</b>	(Optional) Displays module number.
module-num	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
	5.2(1)SM1(5.1)	This command was introduced.

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

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

**Examples** This example shows how to display Cisco VSG connections:

```
vsm-hpv# show vservice connection
```

## show vservice connection

```

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

#Port-Profile:(null)                Node:VSG-Root
#Module 4
Proto SrcIP[:Port]                SAct  DstIP[:Port]                DAct  Flags                Bytes

```

# show vservice detail

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

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

## Syntax Description

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

## Command Default

None

## Command Modes

EXEC

## Supported User Roles

network-admin  
network-operator

## Command History

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

## Usage Guidelines

You can use the following operators with the **show 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-hpv# show vservice detail
```

```
-----
                                License Information
-----
Mod  VSG-Lic-Count
```

■ show vservice detail

```

4          2
-----
                                Node Information
-----
Node ID:3      Name:VSG-Root
Type:vsg      IPAddr:10.1.0.150      Fail:close L3
Mod  State    MAC-Addr      VVer
 4  Alive    --              2
-----
                                Path Information
-----
-----
                                Port Information
-----
PortProfile:veth-10
Org:root/Tenant-1/VDC-1/App-1/Tier-1
Node:VSG-Root(10.1.0.150)      Profile(Id):SP100(16)
Veth5
Module  :4
VM-Name :vm-win-16
vNIC:Network Adapter
DV-Port :884f1580-0ad6-4958-a74a-c27b3febbe28--8884a888-09e1-4503-8074-de32e3e2
af85
VM-UUID :884F1580-0AD6-4958-A74A-C27B3FEBBE28
DVS-UUID:633a90b8-98bd-4264-b3b6-7a0d77b73ba1
vsm#
-----

```

**Related Commands**

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

# show vservice license brief

To display 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
	5.2(1)SM1(5.1)	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:

```
n1000v# show vservice license brief
```

```
-----
                                License Information
-----
Type      In-Use-Lic-Count  UnLicensed-Mod
vsg              2
asa              0
```

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

<b>module</b>	Filters 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
5.2(1)SM1(5.1)	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-hpv# show vservice license detail mod 4
```

```
-----
                                License Information
-----
Mod  VSG-Lic-Count  ASA-Lic-Count
  4         2         0
```

## Related Commands

Command	Description
<b>show license usage</b>	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
	5.2(1)SM1(5.1)	This command was introduced.

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

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

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

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

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

# show vservice node brief

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

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

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

**Command Default** None

**Command Modes** EXEC

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

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

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

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

## Examples

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

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

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



# show vservice node detail

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

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

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

**Command Default** None

**Command Modes** EXEC

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

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

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

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

## Examples

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

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

```
-----
                                Node Information
-----
Node ID:3           Name:VSG-Root
```

```
Type:vsg      IPAddr:10.1.0.150      Fail:close L3
Mod  State     MAC-Addr              VVer
  4  Alive     --                    2
```

# show vservice port brief

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

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

## Syntax Description

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

## Command Modes

EXEC

## Supported User Roles

Network-admin  
Network-operator

## Command History

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

## Usage Guidelines

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

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

## Examples

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

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

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

---

**Related Commands**

Command	Description
<b>vservice port detail</b>	Displays details of the configured ports in the network.

---

# show vservice port detail

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

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

## Syntax Description

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

## Command Modes

EXEC

## Supported User Roles

network-admin  
network-operator

## Command History

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

## Usage Guidelines

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

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

## Examples

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



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

```
-----
Port Information
-----
```

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

---

**Related Commands**

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

---

# show vservice statistics

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

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

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

**Command Default** None

**Command Modes** EXEC

**SupportedUserRoles** network-admin  
network-operator

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

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

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

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

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

```

Decapsulated                1                2                3
Fail-Open                   0                0                0
Badport Err                 0                0                0
VSN Config Err              0                0                0
VSN State Down              228              1288             1516
Encap Err                   0                0                0
Version Mismatch            0                0                0
V1 In svcPath               0                0                0
All-Drops                   228              1288             1516
Flow Notificns Sent         0
Total Rcvd From VSN         5
Non-Cisco Encap Rcvd        0
VNS-Port Drops              2
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          1 Forward Flow Destroy          1
Reverse Flow Create          1 Reverse Flow Destroy          2
Flow ID Alloc                3 Flow ID Free                   3
Connection ID Alloc          1 Connection ID Free            1
L2 Flow Create               1 L2 Flow Destroy                1
L3 Flow Create               0 L3 Flow Destroy                0
L4 TCP Flow Create           0 L4 TCP Flow Destroy            0
L4 UDP Flow Create           2 L4 UDP Flow Destroy            2
L4 Oth Flow Create           0 L4 Oth Flow Destroy            0
Embryonic Flow Create        0 Embryonic Flow Bloom          0
L2 Flow Timeout              2 L2 Flow Offload                3
L3 Flow Timeout              0 L3 Flow Offload                0
L4 TCP Flow Timeout          0 L4 TCP Flow Offload            0
L4 UDP Flow Timeout          5 L4 UDP Flow Offload            0
L4 Oth Flow Timeout          0 L4 Oth Flow Offload            0
Flow Lookup Hit              5 Flow Lookup Miss               3
Flow Dual Lookup             8 L4 TCP Tuple-reuse             0
TCP chkfail InvalACK        0 TCP chkfail SeqPstWnd          0
TCP chkfail WndVari         0
Flow Classify Err            0 Flow ID Alloc Err              0
Conn ID Alloc Err            0 Hash Alloc Err                 0
Flow Exist                   0 Flow Entry Exhaust             0
Flow Removal Err             0 Flow Entry Miss                0
Flow Full Match Err          0 Bad Action Receive             0
Invalid Flow Pair            3 Invalid Connection              0
Hash Alloc                   0 Hash Free                       0
InvalFID Lookup Err          0 Deferred Delete                0

```

**Related Commands**

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

## state (port profile)

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

**state enabled**

**no state enabled**

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

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

Command Modes	Port profile configuration (config-port-prof)
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SupportedUserRoles	network-admin
--------------------	---------------

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

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

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

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

# tcp state-checks

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

**tcp state-checks**

**no tcp state-checks**

**Syntax Description** There are no arguments.

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

**SupportedUserRoles** network-admin  
system-admin

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

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

---

**Examples**

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

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

---

**Related Commands**

Command	Description
<b>vservice global type vsg</b>	Enters the vservice global configuration mode.

# vlan

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

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

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

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

Defaults	VLAN 1
----------	--------

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

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

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

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

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

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

This example shows how to remove a VLAN:

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

Related Commands	Command	Description
	<b>show vlan</b>	Displays the VTP VLAN status.

# vservice

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

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

```
no vservice
```

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

**Defaults** None

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

**SupportedUserRoles** network-admin

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

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

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

```
vsm(config)# port-profile port1 <----- Enter the mode of the port-profile entity you
want to configure
vsm(config-port-prof)# vservice node vs1 profile sp1
```

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



# vservice global type vsg

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

**vservice global type vsg**

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

**Command Default** None

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

**SupportedUserRoles** network-admin

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

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

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

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

## vservice node

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

```
vservice node node_name type { vsg }
ip address ip-address | no ip address
adjacency { I3 } | no adjacency failmode { close | open } | no failmode
```

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

Syntax Description		
<b>node_name</b>		Service node name to identify it in the network.
<b>type</b>		Specifies the type of service node to be configured.
<b>vsg</b>		Specifies the Cisco VSG service node.
<b>ip address</b>		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.
<b>no</b>		No IP address associated with the service node.
<b>adjacency</b>		Specifies the adjacency for Layer 3 mode.
<b>I3</b>		Specifies Layer 3 (using IP address) mode for the service node.
<b>failmode</b>		Sets the state to be in either fail close or fail open mode.
<b>close</b>		Drops packets if the Cisco VSG is down. This is the default value.
<b>open</b>		Allows the packets to pass through if the Cisco VSG is down.

**Command Default** None

**Command Modes** Global configuration (config)

**SupportedUserRoles** Network-admin

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

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

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

**Examples**

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

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

**Related Commands**

Command	Description
<b>show vservice node brief</b>	Displays brief information about the vservice node.
<b>show vservice node detail</b>	Displays detailed information about the vservice node.

# vservice license

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

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

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

## Syntax Description

<b>type</b>	Specifies the service node license. The options are Cisco VSG.
<b>vsg</b>	Specifies the VSG license type that you can assign to a specific module.
<b>transfer</b>	Specifies that the license needs to be transferred.
<b>volatile</b>	Specifies the volatile licenses within the network.
<b>src-module</b>	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.
<b>license-pool</b>	Specifies that the license has to be transferred from a module to the pool or from the pool to a module.
<b>dst-module</b>	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
5.2(1)SM1(5.1)	This command was introduced.

## Usage Guidelines

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

You can transfer the licenses within the modules and license pool. This command also enables (activate) 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 enable volatile Cisco VSG licenses:

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

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show vservice license brief</b>	Displays usage information per license type.
	<b>show vservice license detail</b>	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
	5.2(1)SM1(5.1)	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.