Cisco Nexus 1000V Series Switch Commands

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

capability l3-vservice

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

> **capability l3-vservice**

> **no capability l3-vservice**

Syntax Description	This command has no arguments or keywords.

Defaults	None

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

SupportedUserRoles	network-admin

Command History

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

Examples

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

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

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

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

Related Commands

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

clear vservice connection

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

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

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

Defaults   None

Command Modes   EXEC

Global configuration (config)

SupportedUserRoles   network-admin

network-operator

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

Examples   This example shows how to clear Cisco VSG connections:

```
vsm# clear vservice connection
```

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

clear vservice statistics

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

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

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

Defaults   None

Command Modes   EXEC

Global configuration (config)

SupportedUserRoles   network-admin

network-operator

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

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

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

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

copy running-config startup-config

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

copy running-config startup-config

Syntax Description   This command has no arguments or keywords.

Defaults   None

Command Modes   Any command mode

SupportedUserRoles   network-admin
network-operator

Command History

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

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

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

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

Related Commands

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

log-level

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

log-level {**critical** | **debug0** | **debug1** | **debug2** | **debug3** | **debug4** | **info** | **major** | **minor** | **warn**}

no {**critical** | **debug0** | **debug1** | **debug2** | **debug3** | **debug4** | **info** | **major** | **minor** | **warn**}

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

Command Default   None

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

SupportedUserRoles   network-admin

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

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

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

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

org

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

org *organization-name*

no org [*organization-name*]

Syntax Description	*organization-name*	Organization name. The number of characters is from 1 to 251.

Command Default	None

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

SupportedUserRoles	network-admin

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

Usage Guidelines Cisco Prime NSC organizations are Cisco Prime NSC domains.

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

Examples This example shows how to create an organization:

```
vsm# configure
Enter configuration commands, one per line. End with CNTL/Z.
vsm(config)# port-profile pP1
vsm(config-port-prof)# org root/tenant1
vsm(config-port-prof)#
```

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

ping vsn

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

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

Syntax Description

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

Command Default   None

Command Modes   EXEC

SupportedUserRoles   network-admin

Command History

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

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

Examples   This example shows how to ping a Cisco VSG:

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

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

```
    o   all : All VSNs that are currently associated to at least one VM. In other words,
    all VSNs specified in port-profiles that are bound to at least one VM.
    o   ip-addr <ip-addr> : All VSNs configured with this IP address.
•   src-module : Source modules to orginate 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> : Sepcifies number of ping packets to be sent. Default is 5. Min 1, Max
    2147483647.
    o   unlimited : Send ping packets until command is stopped.
```

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

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

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

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

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


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

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

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

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

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

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

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

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

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

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

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

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

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

vsm#
```

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

policy-agent-image

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

policy-agent-image bootflash:

no policy-agent-image bootflash:

Syntax Description		
bootflash:	Designates the policy agent image local URL as bootflash.	

Command Default   None

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

SupportedUserRoles   network-admin

Command History

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

Examples   This example shows how to designate the local URL that contains the policy agent image:

```
vsm# configure
vsm(config)# nsc-policy-agent
vsm(config-nsc-policy-agent)# policy-agent-image bootflash:
```

Related Commands

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

pop

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

pop *file-name*

Syntax Description	*file-name*	Name of the file.

Command Default	None

Command Modes	EXEC

SupportedUserRoles	network-admin

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

Examples

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

```
vsm# pop file1
```

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

port-profile

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

port-profile *profile-name*

no port-profile *profile-name*

Syntax Description	*profile-name*	Port profile name. The number of characters is from 1 to 80.

Defaults   None

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

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

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

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

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

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

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

Related Commands

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

push

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

push *file-name*

Syntax Description	*file-name*	Name of the file.

Command Default   None

Command Modes   EXEC

SupportedUserRoles   network-admin

Command History

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

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

```
vsm# push file1
```

Related Commands

Command	Description
pop	Pops the current mode off the stack.

registration-ip

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

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

> **no registration-ip**

Syntax Description

ip-address	Service registry IP address. The format is A.B.C.D.

Command Default   None

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

SupportedUserRoles   network-admin

Command History

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

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

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

Related Commands

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

shared-secret

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

shared-secret *shared-secret-password*

no shared-secret

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

Command Default None

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

SupportedUserRoles network-admin

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

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

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

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

show org port brief

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

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

Syntax Description

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

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 org port brief** command:

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

Examples

This example shows how to display the port profile information:

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

show running-config

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

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

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

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

Command Default   None

Command Modes   EXEC

SupportedUserRoles   network-admin

network-operator

Command History

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

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

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

Examples   This example shows how to display the running configuration:

```
vsm-hpv# show running-config

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

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

hostname VSM-hpv

no feature telnet
feature network-segmentation-manager

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

banner motd #Nexus 1000V Switch
```

```
                    #

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

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

                    port-channel load-balance ethernet source-mac
                    port-profile default max-ports 32
                    port-profile default port-binding static
                    port-profile type vethernet NSM_template_vlan
                      no shutdown
                      guid 86ceec5b-7a9c-4df4-9218-333bfc6f40a5
                      description NSM default port-profile for VLAN networks. Do not delete.
                      state enabled
                    port-profile type vethernet NSM_template_segmentation
                      no shutdown
                      guid 4a6cf01d-80df-48b2-87d8-0b0a15e7d450
                      description NSM default port-profile for VXLAN networks. Do not delete.
                      state enabled
                    port-profile type ethernet Uplink
                      no shutdown
                      guid 2122b8d9-8d21-4fb3-9e75-971fbb1a266d
                      max-ports 512
                      state enabled
                    port-profile type ethernet uplink_network_default_policy
                      no shutdown
                      guid bf7bd8ce-9a90-4af2-98c9-d7f8bafa9cb2
                      max-ports 512
                      description NSM created profile. Do not delete.
                      state enabled
                    port-profile type vethernet N1K
                      no shutdown
                      guid 70cff39e-9136-434c-8f36-f17e82210031
                      state enabled
                      publish port-profile
                    port-profile type vethernet service
                      no shutdown
                      guid 6b9b60fd-4aff-40da-896c-7df7bc252908
                      state enabled
                      publish port-profile
                    port-profile type vethernet ha
                      no shutdown
                      guid 7f598f09-68d6-47a3-97e0-158ce8558292
                      state enabled
                      publish port-profile
                    port-profile type vethernet vnadp
                      capability l3-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

node-name	(Optional) Name of the vservice node.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

You can use the following operators with the **show running-config 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 VSGl3 type vsg
ip address 192.168.180.33
adjacency l3
fail-mode close
vservice node VSGhv-l3 type vsg
ip address 192.168.180.31
adjacency l3
fail-mode close
```

Related Commands

Command	Description
vservice node	Configures a service node.

show nsc-pa status

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

show nsc-pa status

Syntax Description   This command has no arguments or keywords.

Command Default   None

Command Modes   Global configuration (config)

EXEC

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 nsc-pa status** command:

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

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

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

Related Commands

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

show vservice brief

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

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

Syntax Description

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

Command Default

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

```
VSM# show vservice brief
--------------------------------------------------------------------------------
                               Node Information
--------------------------------------------------------------------------------
```

```
ID Name                        Type    IP-Address     Mode   State   Module
 1 NODE-1                      vsg     20.1.0.142     l3     Alive   3,4,


--------------------------------------------------------------------------------
                                Path Information
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                                Port Information
--------------------------------------------------------------------------------
PortProfile:PP-VNS-1
Org:root/Tenant/VDC/App/Tire
Node:NODE-1(20.1.0.142)                         Profile(Id):SP1(8)
Veth Mod VM-Name                                vNIC IP-Address
   3   4 ub-vm-60                                   30.1.0.60,
   6   3 ub-vm-20                                   30.1.0.20,


VSM#
```

show vservice connection

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

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

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

Command Default   None

Command Modes   EXEC

Global configuration (config)

Supported User Roles   network-admin

network-operator

Command History

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

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

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

Examples   This example shows how to display Cisco VSG connections:

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

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

show vservice detail

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

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

Syntax Description

node-name	(Optional) Displays service node name.
node-name	Specifies the service node.
node-l3	Displays the port information for the Layer 3 adjacency of a node.
node-ipaddr	Displays the port information for the specified IP address of the node.
ip-addr	Specifies the IP address of the service node.
module	(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

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 detail** command:

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

Examples

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

```
VSM# show vservice detail
--------------------------------------------------------------------------------
                                Node Information
--------------------------------------------------------------------------------
```

```
Node ID:1        Name:NODE-1
Type:vsg        IPAddr:20.1.0.142        Fail:close  L3
Mod  State      MAC-Addr                VVer
  3  Alive      --                        2
  4  Alive      --                        2


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

VSM#
------------------
```

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

show vservice node mac brief

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

show vservice node mac brief

Syntax Description   This command has no arguments or keywords.

Command Default   None

Command Modes   EXEC

Global configuration (config)

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 l3     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>*] | {[**l3**] [**ipaddr** *<ip_addr>*]} } [**module** *<module_num>*]}

Syntax Description

name	(Optional) Displays service node name.
name	Service node.
l3	(Optional) Displays the port information for the Layer 3 adjacency.
ipaddr	(Optional) Displays the port information for the specified IP address of the node.
ip_addr	Node's IP address.
module	(Optional) Displays module keyword.
module-num	Module number to see all the VSN connections on the module.

Command Default

None

Command Modes

EXEC

Global configuration (config)

Supported User Roles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

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

```
--------------------------------------------------------------------------
ID Name                 Type    IP-Address      Mode    State   Module
  3 VSG-Root             vsg     10.1.0.150      l3      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>*] | {[**l3**] [**ipaddr** *<ip_addr>*]} } [**module** *<module_num>*]}

Syntax Description

name	(Optional) Displays the service node name.
name	Service node.
l3	(Optional) Displays the port information for the Layer 3 adjacency.
ipaddr	Displays the port information for the specified IP address of the node.
ip_addr	Node's IP address.
module	(Optional) Displays module keyword.
module-num	Module number to see all the VSN connections on the module.

Command Default   None

Command Modes   EXEC

Global configuration (config)

Supported User Roles   network-admin

network-operator

Command History

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

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

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

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

```
VSM-hpv# show vservice node detail

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

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

show vservice port brief

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

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

Syntax Description

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

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

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

```
vsm# show vservice port brief module 4

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

Related Commands

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

show vservice port detail

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

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

Syntax Description

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

Command Modes

EXEC

Global configuration (config)

Supported User Roles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

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

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

Related Commands

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

show vservice statistics

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

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

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

Command Default   None

Command Modes   EXEC

Global configuration (config)

SupportedUserRoles   network-admin
network-operator

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

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

state (port profile)

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

state enabled

no state enabled

Syntax Description	enabled	Enables the port profile.

Defaults   Disabled

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

SupportedUserRoles   network-admin

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

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

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

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

switchport mode

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

switchport mode {**access** | **trunk**}

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

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

Defaults Switchport mode is not set.

Command Modes Interface configuration (config-if)

Port profile configuration (config-port-prof)

SupportedUserRoles network-admin

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

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

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

This example shows how to remove the mode configuration:

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

Related Commands	Command	Description
	show interface	Displays interface information.

switchport access vlan

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

switchport access vlan *vlan-id*

no switchport access vlan *vlan-id*

Syntax Description	*vlan-id*	VLAN identification number. The range is from 1 to 3967.

Defaults   Access mode is not set.

Command Modes   Interface configuration (config-if)

Port profile configuration (config-port-prof)

SupportedUserRoles   network-admin

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

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

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

This example shows how to remove the access mode configuration:

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

Related Commands	Command	Description
	show interface	Displays interface information.

tcp state-checks

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

> **tcp state-checks**

> **no tcp state-checks**

Syntax Description   There are no arguments.

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

SupportedUserRoles   network-admin

system-admin

Command History

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

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

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

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

Related Commands

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

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

id	VLAN identification number. The range is from 1 to 4094.
dot1Q tag native	Specifies an IEEE 802.1Q virtual LAN.

Defaults   VLAN 1

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

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

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

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

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

This example shows how to remove a VLAN:

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

Related Commands

Command	Description
show vlan	Displays the VTP VLAN status.

vservice

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

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

no vservice

Syntax Description		
node	Specifies the service node to associate the port profile with.	
node_name	Predefined service node name.	
profile	(Optional) Specifies the service profile that the service node is to be associated with.	
profile_name	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 vsg1 profile sp1
```

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

vservice global type vsg

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

vservice global type vsg

Syntax Description   This command has no keywords or arguments.

Command Default   None

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

SupportedUserRoles   network-admin

Command History

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

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

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

Related Commands

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

vservice node

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

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

Syntax Description

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

Command Default   None

Command Modes   Global configration (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 l3
vsm(config-vservice-node)# fail-mode close
```

Related Commands

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

nsc-policy-agent

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

nsc-policy-agent

Syntax Description   This command has no arguments or keywords.

Command Default   None

Command Modes   Global configuration (config)

SupportedUserRoles   network-admin

Command History

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

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

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

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

Related Commands

Command	Description
configure	Enters global configuration mode.