Cisco Nexus 1000V Series Switch Commands

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

bypass asa-traffic

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

bypass asa-traffic

no bypass asa-traffic

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

vservice global configuration (config-vservice-global)

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

Examples

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

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

Related Commands

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

capability l3-vservice

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

capability l3-vservice

no capability l3-vservice

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

port-profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

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

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

Examples

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

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

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

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

Related Commands

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

clear vservice connection

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

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

Syntax Description

module	(Optional) Clears a specific module.
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
4.1(2)SV1(5.2)	The name of the command is modified.
4.0(4)SV1(1)	This command was introduced.

Examples

This example shows how to clear Cisco VSG connections:

```
vsm# clear vservice connection
```

Related Commands

Command	Description
show vservice	Displays Cisco VSG information.

clear vservice statistics

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

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

Syntax Description

module	(Optional) Clears a module.
module-number	Module number. The range is from 3 to 66.
vlan	(Optional) Clears a VLAN.
vlan-number	VLAN number.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
4.1(2)SV1(5.2)	The name of the command is modified.
4.0(4)SV1(1)	This command was introduced.

Examples

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

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

Related Commands

Command	Description
show vservice	Displays Cisco VSG information.

copy running-config startup-config

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

copy running-config startup-config

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
network-operator

Command History

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

Usage Guidelines

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

Examples

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

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

Related Commands

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

log-level

To set logging severity levels for the Cisco Virtual Network Management Center (VNMC) policy agent, use the **log-level** command. To reset logging levels, use the **no** form of this command.

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

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

Syntax Description

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

Command Default

None

Command Modes

Cisco VNMC policy agent configuration (config-vnm-policy-agent)

SupportedUserRoles

network-admin

Command History

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

Examples

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

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

Related Commands

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

org

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

org *organization-name*

no org *organization-name*

Syntax Description

organization-name	Organization name. The number of characters allowed is from 1 to 251.

Command Default

None

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

Cisco VNMC organizations are Cisco VNMC domains.

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

Examples

This example shows how to create an organization:

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

Related Commands

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

ping vsn

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

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

Syntax Description

ip	Designates that a specific IP address is to be pinged.
vsn-ip-addr	IP address of the specific VSN.
vlan	(Optional) Designates a specific VLAN is to be pinged.
vsn-vlan-num	Specific VLAN number.
vxlan bridge-domain	(Optional) Designates a virtual extensible local area network (VXLAN) bridge domain.
bridge-domain-name	VXLAN bridge-domain name.
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
4.2(1)VSG1(4.1)	The output of the **ping-vsn** command was changed to support the VXLAN.
4.2(1)VSG1(3.1)	The output of the **ping-vsn** command was changed to include the examples that show all of the source module traffic.
4.2(1)VSG1(2)	This command was introduced.

Usage Guidelines

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

Examples

This example shows how to ping a Cisco VSG:

```
vsm# ping ?
  <CR>
  A.B.C.D or Hostname  IP address of remote system
  WORD                 Enter Hostname
  mpls                 Ping an MPLS network
  multicast            Multicast ping
  vsn                  VSNs to be pinged

vsm# ping vsn

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

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

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

```
Various forms:
ping vsn all src-module all                (Ping all VSNs from all modules)
ping vsn all src-module vpath-all              (Ping all VSNs from all modules having
                                                VMs associated to VSNs)
ping vsn all src-module 3                      (Ping all VSNs from the specified module)
ping vsn ip 106.1.1.1 src-module all           (Ping specified VSN from all modules)
ping vsn ip 106.1.1.1 vlan 54  src-module all (Ping specified VSN from all modules)
ping vsn ip 106.1.1.1 src-module vpath-all   (Ping specified VSN from all modules
                                                having VMs associated to VSNs)
ping vsn ip 106.1.1.1 vlan 54 src-module 3     (Ping specified VSN from specified
                                                module)
```

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

```
ping vsn all src-vpath all timeout 2 count 10
ping vsn all ip 106.1.1.1 count unlimited
ping vsn ip 106.1.1.1 vlan 54 src-vpath 3 count 10

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

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

```
vsm# ping vsn all src-module all
ping vsn 10.1.1.44 vlan 501 from module 9 10 11 12, seq=0 timeout=1-sec
```

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

ping vsn 10.1.1.44 vlan 501 from module 9 10 11 12, seq=1 timeout=1-sec
  module(usec)   :  9(277) 10(436) 11(270) 12(399)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=1 timeout=1-sec
  module(usec)   :  9(376) 10(606) 11(468) 12(622)

ping vsn 10.1.1.44 vlan 501 from module 9 10 11 12, seq=2 timeout=1-sec
  module(usec)   :  9(272) 10(389) 11(318) 12(357)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=2 timeout=1-sec
  module(usec)   :  9(428) 10(632) 11(586) 12(594)

ping vsn 10.1.1.44 vlan 501 from module 9 10 11 12, seq=3 timeout=1-sec
  module(usec)   :  9(284) 10(426) 11(331) 12(387)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=3 timeout=1-sec
  module(usec)   :  9(414) 10(663) 11(644) 12(698)

ping vsn 10.1.1.44 vlan 501 from module 9 10 11 12, seq=4 timeout=1-sec
  module(usec)   :  9(278) 10(479) 11(334) 12(469)
ping vsn 10.1.1.40 vlan 0 from module 9 10 11 12, seq=4 timeout=1-sec
  module(usec)   :  9(397) 10(613) 11(560) 12(593)

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


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


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


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


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


vsm#
```

Related Commands

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

policy-agent-image

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

policy-agent-image bootflash:

no policy-agent-image bootflash:

Syntax Description

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

Command Default

None

Command Modes

VNMC policy agent configuration (config-vnm-policy-agent)

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(4)SV1(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)# vnm-policy-agent
vsm(config-vnm-policy-agent)# policy-agent-image bootflash:
```

Related Commands

Command	Description
vnm-policy-agent	Enables the VNM policy agent configuration mode.

pop

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

pop *file-name*

Syntax Description		
	file-name	Name of the file.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin

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

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

```
vsm# pop file1
```

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

port-profile

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

port-profile *profile-name*

no port-profile *profile-name*

Syntax Description

profile-name	Port profile name. The range for number of characters is from 1 to 80.

Defaults

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

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

Examples

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

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

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

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

Related Commands

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

push

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

push *file-name*

Syntax Description		
	file-name	Name of the file.

Command Default None

Command Modes EXEC

SupportedUserRoles network-admin

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

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

```
vsm# push file1
```

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

registration-ip

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

registration-ip *ip-address*

no registration-ip

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

Command Default

None

Command Modes

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

SupportedUserRoles

network-admin

Command History

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

Examples

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

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

Related Commands

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

shared-secret

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

shared-secret *shared-secret-password*

no shared-secret

Syntax Description

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

Command Default

None

Command Modes

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

SupportedUserRoles

network-admin

Command History

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

Examples

This example shows how to set the shared secret password:

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

Related Commands

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

show org port brief

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

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

Syntax Description

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

Command Modes

EXEC

SupportedUserRoles

Network-admin

Network-operator

Command History

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

Usage Guidelines

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

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

Examples

This example shows how to display the port profile information:

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

show running-config

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

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

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

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

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
4.2(1)SV1(5.1)	New parameters were added to this command.
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

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

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

Examples

This example shows how to display the running configuration:

```
vsm# show running-config

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

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

username admin password 5 $1$z3M0/3no$j77mpF9f/mqmd7/mEZ6RR1  role network-admin
username adminbackup password 5 $1$Oip/C5Ci$oOdx7oJSlBCFpNRmQK4na.  role network-operator

banner motd #Nexus 1000v Switch#
```

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

vrf context management
  ip route 0.0.0.0/0 10.193.72.1
vlan 1,61-65
port-channel load-balance ethernet source-mac
port-profile default max-ports 32
port-profile default port-binding static
port-profile type vethernet vm-clear
  vmware port-group
  switchport mode access
  switchport access vlan 63
  no shutdown
  state enabled
port-profile type vethernet vsn-service
  vmware port-group
  switchport mode access
  switchport access vlan 64
  no shutdown
  max-ports 1024
  state enabled
port-profile type ethernet system-uplink
  vmware port-group
  switchport trunk allowed vlan 61-70
  switchport mode trunk
  no shutdown
  system vlan 61-62
  state enabled
port-profile type vethernet vsg129-2
  vmware port-group
  switchport mode access
  switchport access vlan 63
  org root/Canon
  vn-service ip-address 10.10.129.2 vlan 64 security-profile sp-vsg2-1
  no shutdown
  state enabled
port-profile type vethernet vsg134-1
  vmware port-group
  switchport mode access
  switchport access vlan 63
  vn-service ip-address 10.10.134.1 vlan 64 mgmt-ip-address 10.10.73.132 security-profile
sp1
  no shutdown
  state enabled
port-profile type vethernet vsg136-1
  vmware port-group
  switchport mode access
  switchport access vlan 63
  vn-service ip-address 10.10.136.1 vlan 64 mgmt-ip-address 10.10.73.137 security-profile
sp1
  no shutdown
  state enabled
port-profile type vethernet vsg129_2-svc-vlan65
  vmware port-group
```

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

vdc vsm id 1
  limit-resource vlan minimum 16 maximum 2049
  limit-resource monitor-session minimum 0 maximum 2
  limit-resource vrf minimum 16 maximum 8192
  limit-resource port-channel minimum 0 maximum 768
  limit-resource u4route-mem minimum 32 maximum 32
  limit-resource u6route-mem minimum 16 maximum 16
  limit-resource m4route-mem minimum 58 maximum 58
  limit-resource m6route-mem minimum 8 maximum 8

interface mgmt0
  ip address 10.10.73.130/21

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

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

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

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

```
  vmware vm mac 0050.56BB.003E

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

interface Vethernet6
  inherit port-profile vsn-service
  description VSG134-1,Network Adapter 1
  vmware dvport 3683 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.002C

interface Vethernet7
  inherit port-profile vsn-service
  description VSG129-2,Network Adapter 1
  vmware dvport 3686 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.0037

interface Vethernet8
  inherit port-profile vsn-service
  description VSG136-1,Network Adapter 1
  vmware dvport 3684 dvswitch uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c"
  vmware vm mac 0050.56BB.0034

interface Ethernet3/2
  inherit port-profile system-uplink

interface Ethernet4/6
  inherit port-profile system-uplink

interface Ethernet5/6
  inherit port-profile system-uplink

interface control0
line console
boot kickstart bootflash:/ks.bin sup-1
boot system bootflash:/sys.bin sup-1
boot kickstart bootflash:/ks.bin sup-2
boot system bootflash:/sys.bin sup-2
svs-domain
  domain id 61
  control vlan 61
  packet vlan 62
  svs mode L2
svs connection vcenter
  protocol vmware-vim
  remote ip address 10.10.79.32 port 80
  vmware dvs uuid "90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c" datacenter-name NAME/S
  connect
vnm-policy-agent
  registration-ip 10.193.73.144
  shared-secret **********
  policy-agent-image bootflash:/vnmc-vsmpa.1.0.0.512.bin
  log-level
```

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	Name of the vservice node.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

Network-admin

Network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

```
vsm# show running-config vservice node

!Command: show running-config vservice node
!Time: Mon Jul  9 16:10:19 2012

version 4.2(1)SV1(5.2)
vservice node vasatDbd5 type asa
  ip address 172.8.8.201
  adjacency l2 vxlan bridge-domain bd5555
  fail-mode open
vservice node vasatCbd5 type asa
  ip address 172.8.8.101
  adjacency l2 vxlan bridge-domain bd5555
  fail-mode open
```

```
vservice node vsntest type vsg
  fail-mode close
vservice node testvwaas type vwaas
  fail-mode close
vservice node test type vsg
  adjacency l3
  fail-mode open
vservice node testip type vsg
  fail-mode close
vservice node vsgl2tC type vsg
  ip address 10.10.10.103
  adjacency l2 vlan 504
  fail-mode close
vservice node vsgl2tA101 type vsg
  ip address 10.10.10.101
  adjacency l2 vlan 504
  fail-mode close
vservice node vsgl2tB102 type vsg
  ip address 10.10.10.102
  adjacency l2 vlan 504
  fail-mode close
vservice node vsgtCbd6 type vsg
  ip address 10.10.10.103
  adjacency l2 vxlan bridge-domain bd6666
  fail-mode close
vservice node vsgl2tD104 type vsg
  ip address 10.10.10.104
  adjacency l2 vlan 504
  fail-mode open
vservice node vsgl2tE105 type vsg
  ip address 10.10.10.105
  adjacency l2 vlan 504
  fail-mode close
vservice node vsgl3tA101 type vsg
  ip address 10.10.10.201
  adjacency l3
  fail-mode close
vservice node vsgl3tB102 type vsg
  ip address 10.10.10.202
  adjacency l3
  fail-mode close
vservice node vsgl3tC103 type vsg
  ip address 10.10.10.203
  adjacency l3
  fail-mode close
vservice node vsgl3tD104 type vsg
  ip address 10.10.10.204
```

Related Commands

Command	Description
vservice node	Configures a service node.

show running-config vservice path

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

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

Syntax Description

node-name	Name of the vservice node's name.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

Network-admin

Network-operator

Command History

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

Usage Guidelines

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

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

Examples

This example shows how to display information about a vservice path:

```
vsm# show running-config vservice path

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

version 4.2(1)SV1(5.2)
vservice path sp-tDvsg504vasabd5
  node vsgl2tD104 profile sp-tD order 1
  node vasatDbd5 profile ep-tD order 100
vservice path sp-tDvsgl3vasabd5
  node vsgl3tD104 profile sp-tD order 1
  node vasatDbd5 profile ep-tD order 1000000000
vservice path sp-vsgl3tD
  node vsgl3tD104 profile sp-tDl3
```

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

Related Commands

Command	Description
vservice path	Configures a service path.

show vnm-pa status

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

show vnm-pa status

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

You can use the following operators with the **show vnm-pa status** command:

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

Examples

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

```
vsm# configure
vsm(config)# show vnm-pa status
VNM Policy-Agent status is - Installed Successfully. Version 1.0(0.512)-vsm
vsm(config)#
```

Related Commands

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

show vservice brief

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

show vservice brief [**node-l3 node-ipaddr** *ip-addr* | **node-l3 module** *module-num*] [**node-vxlan bridge-domain** *bridge-domain-name*] | **node-vlan vlan-id** | **node-name** *node name* | **module** *module-num*

Syntax Description

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

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

```
vsm# show vservice brief

#License Information
Type      In-Use
vsg            0
asa            2

#Node Information
 ID Name                     Type   IP-Address      Mode   State   Module
  1 vasatDbd5                asa    172.8.8.201     vxlan  Alive   4,
 12 vsgtCbd6                 vsg    10.10.10.103    vxlan  Alive?? 4,6,
 13 vsgl2tD104               vsg    10.10.10.104    v-504  Alive   4,
 18 vsgl3tD104               vsg    10.10.10.204    l3     Alive   4,6,
 19 vsgl3tE105               vsg    10.10.10.205    l3     Unreach 4,6,

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

Related Commands

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

show vservice connection

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

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

Syntax Description

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

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	The output of the **show vservice connection command** was modified to show the Cisco VSG connections.
4.2.1SV1(5.1)	The output of the **show vservice connection command** was modified to show that the VLAN column is now referred as V(X)LAN. In the V(X)LAN column, the VLAN is represented with prefix ”v-” and V(X)LAN is shown without any prefix.
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

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

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

Examples

This example shows how to display Cisco VSG connections:

```
vsm# show vservice connection
module        node_l3       node_vlan
node_ipaddr   node_name     node_vxlan
Actions(Act):
d - drop                            s - reset
p - permit                          t - passthrough
r - redirect                        e - error
_ - not processed yet               upper case - offloaded
Flags:
A - seen ack for syn/fin from src    a - seen ack for syn/fin from dst
E - tcp conn established (SasA done)
F - seen fin from src                f - seen fin from dst
R - seen rst from src                r - seen rst from dst
S - seen syn from src                s - seen syn from dst
T - tcp conn torn down (FafA done)   x - IP-fragment connection

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

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

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

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

#Node vsgl3tE105
#Module 4
```

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

#Node vsgl3tD104
#Module 4
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags       Bytes
#Module 6
Proto SrcIP[:Port]          SAct  DstIP[:Port]          DAct  Flags       Bytes
```

Related Commands

Command	Description
show vsn port vethernet	Displays port information.

show vservice detail

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

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

Syntax Description

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

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

```
vsm# show vservice detail

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

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

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

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

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

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

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

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

vsm#
-------------------
```

Related Commands

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

show vservice license brief

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

show vservice license brief

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

This example shows how to display the brief information about the license:

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

Related Commands

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

show vservice license detail

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

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

Syntax Description

module	Displays the module number.
module_num	Module number. The range is from 3 to 66.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

This example shows how to display the brief information about the license:

```
vsm# show vservice license detail module 4
------------------------------------------------------------------------------
                                  License Information
------------------------------------------------------------------------------
Mod  VSG-Lic-Count  ASA-Lic-Count
  4              2              2
```

Related Commands

Command	Description
show license usage	The vservice license usage.

show vservice node mac brief

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

show vservice node mac brief

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

```
vsm# show vservice node mac brief
------------------------------------------------------------------------------
                                Node Information
------------------------------------------------------------------------------
 ID Type   IP-Address      MAC-Addr          Mode   Fail  State   Module
  1 asa    172.8.8.201     00:50:56:b5:37:8f vxlan  open  Alive   4,
 12 vsg    10.10.10.103    00:50:56:b5:25:f7 vxlan  close Alive   4,6,7,
 13 vsg    10.10.10.104    00:50:56:b5:6d:36 v-504  close Alive   4,
 18 vsg    10.10.10.204    00:00:00:00:00:00 l3     open  Alive   4,6,
```

show vservice node brief

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

show vservice node brief [**name** *node-name* | **vxlan bridge-domain** *bdname* | **vlan** *vlan_num* | **l3 ip-addr** *ip-addr* | **l3 module** *module-num*] | **ipaddr** *ip-addr* | **module** *module-num*]

Syntax Description

name	(Optional) Displays the service node name.
node-name	Service node.
vxlan bridge-domain	Displays the VXLAN number associated with the service node.
bd_name	Bridge domain name.
vlan	Displays the VLAN node for the Cisco VSG service VLAN.
vlan_num	VLAN number for the Cisco VSG service VLAN.
l3	Displays the Layer 3 mode (using IP address) for the service node.
ipaddr	Displays the IP address of the service node.
ip-addr	IP address of the service node.
l3 module	Displays the Layer 3 module.
module	(Optional) Displays the module number.
module-num	Module number.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	The output of the **show vservice node brief command** was modified.
4.2.1SV1(5.1)	The output of the **show vsn brief** was modified to show the information about the Cisco VSG in Layer 2 and Layer 3 mode.
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

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

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

Examples

This example shows how to display a brief summary of the Cisco VSG vservice node:

```
vsm# show vservice node brief
------------------------------------------------------------------------------
                                  Node Information
------------------------------------------------------------------------------
 ID Name                      Type   IP-Address      Mode   State   Module
  1 vasatDbd5                 asa    172.8.8.201     vxlan  Alive   4,
 12 vsgtCbd6                 vsg    10.10.10.103    vxlan  Alive   4,6,7,
 13 vsgl2tD104               vsg    10.10.10.104    v-504  Alive   4,
 18 vsgl3tD104               vsg    10.10.10.204    l3     Alive   4,6,
```

show vservice node detail

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

show vservice node detail [**name** *node-name* | **vxlan bridge-domain** *bdname* | **vlan** *vlan_num* | **l3 ip-addr** *ip-addr* | **l3 module** *module-num*] | **ipaddr** *ip-addr* | **module** *module-num*]

Syntax Description

name	(Optional) Displays the service node name.
node-name	Service node.
vxlan bridge-domain	Displays the VXLAN number associated with the service node.
bd_name	Bridge domain name.
vlan	(Optional) Displays the VLAN node for the VSG service VLAN.
vlan_num	VLAN number for the VSG service VLAN.
l3 ipaddr	(Optional) Displays the Layer 3 IP address of the node.
l3 module	(Optional) Displays the Layer 3 mode (using the IP address) for the service node.
ipaddr	(Optional) Displays the IP address of the node.
ip-addr	IP address of the node.
module	(Optional) Displays the module number.
module-num	Module number.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin

network-operator

Command History

Release	Modification
4.2.1SV1(5.2)	The output of the **show vservice node detail** command was modified to display the details about the Cisco VSG vservice nod
4.2.1SV1(5.1)	The output of the **show vsn connection command** was modified to show that the VLAN column is now referred as V(X)LAN. In the V(X)LAN column, the VLAN is represented with a prefix “v-” and V(X)LAN is shown without any prefix.
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

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

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

Examples

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

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

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

Node ID:13     Name:vsgl2tD104
Type:vsg       IPAddr:10.10.10.104     Fail:close  Vlan:504
Mod  State     MAC-Addr                VVer
  4  Alive     00:50:56:b5:6d:36          2

Node ID:18     Name:vsgl3tD104
Type:vsg       IPAddr:10.10.10.204     Fail:open   L3
Mod  State     MAC-Addr                VVer
  4  Alive     --                         2
  6  Alive     --                         2
```

show vservice path brief

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

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

Syntax Description

module	(Optional) Displays the module that is assigned to the service node.
module-number	Module number.
name	(Optional) Displays the pathname to the service node.
name	Pathname to the service node.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Examples

This example shows how to display the vservice path:

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

Related Commands

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

show vservice path detail

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

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

Syntax Description

module	(Optional) Displays the module.
module-number	Module number.
name	(Optional) Displays the pathname to the service node.
name	Pathname to the service node.

Defaults

None

Command Modes

EXEC

Global configuration (config)

SupportedUserRoles

network-admin

network-operator

Command History

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

Examples

This example shows how to display the vservice path:

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

Related Commands

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

show vservice port brief

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

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

Syntax Description

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

Command Modes

EXEC

SupportedUserRoles

Network-admin

Network-operator

Command History

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

Usage Guidelines

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

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

Examples

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

```
vsm# show vservice port brief module 4

--------------------------------------------------------------------------------
                                  Port Information
--------------------------------------------------------------------------------
PortProfile:tC-bd5-vsgbd6
Org:root/tC
Node:vsgtCbd6(10.10.10.103)                   Profile(Id):sp-tC(5)
Veth Mod VM-Name                              vNIC IP-Address
   9   4 cos-8.10-bd5-spvsgbd6                   2 172.8.8.10,
  23   4 cos-8.41-bd6-vsgbd6                     1 172.8.8.41,
  37   4 xp-8.11-504-vsg504                      1 172.8.8.11,
  51   4 cos-8.37-503-s...04vasa503              1 172.8.8.37,
  53   4 cos-8.31-503-vsgbd6                     1 172.8.8.31,

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

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

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

PortProfile:tC-bd6-vsgbd6
Org:root/tC
Node:vsgtCbd6(10.10.10.103)                   Profile(Id):sp-tC(5)
Veth Mod VM-Name                              vNIC IP-Address
  11   4 cos-9.13-bd6-vsgl3                      1 172.9.9.13,
```

Related Commands

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

show vservice port detail

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

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

Syntax Description

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

Command Modes

EXEC

SupportedUserRoles

Network-admin

Network-operator

Command History

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

Usage Guidelines

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

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

Examples

This example shows how to display the detailed information of the vservice for module 4:

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

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

```
Node                                          Profile(Id)
 vsgl3tD104(10.10.10.204)                     sp-tD(6)
 vasatDbd5(172.8.8.201)                       ep-tD(8)
Veth72
 Module  :4
 VM-Name :cos-8.40-bd5-s...l3vasabd5
 vNIC:Network Adapter 1
 DV-Port :3712
 VM-UUID :50 35 af 46 40 bb ef 61-37 9e c7 6f 5a 97 4e 18
 DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
 IP-Addrs:172.8.8.40,

PortProfile:tD-504-vsg504
Org:root/tD
Node:vsgl2tD104(10.10.10.104)                 Profile(Id):sp-tD(6)
Veth69
 Module  :4
 VM-Name :cos-8.38-504-vsg504
 vNIC:Network Adapter 1
 DV-Port :4642
 VM-UUID :50 35 9a 63 d0 6a ff de-a5 66 65 2c 06 be e4 c1
 DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
 IP-Addrs:172.8.8.38,

PortProfile:tD-bd5-vsgl3
Org:root/tD
Node:vsgl3tD104(10.10.10.204)                 Profile(Id):sp-tDl3(7)
Veth50
 Module  :4
 VM-Name :2k3-9.8-bd6-spvsgl3
 vNIC:Network Adapter 1
 DV-Port :3777
 VM-UUID :50 35 93 44 8b 31 35 e1-02 50 e1 5c 5e 3f 51 2a
 DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
 IP-Addrs:172.9.9.8,

PortProfile:tC-bd6-vsgbd6
Org:root/tC
Node:vsgtCbd6(10.10.10.103)                   Profile(Id):sp-tC(5)
Veth11
 Module  :4
 VM-Name :cos-9.13-bd6-vsgl3
 vNIC:Network Adapter 1
 DV-Port :4832
 VM-UUID :50 35 f0 fb 15 4a 2b 46-4c 69 4c 24 d3 ab ff 0f
 DVS-UUID:6f df 35 50 6b 49 88 d0-ce 2f 69 82 57 25 38 55
 IP-Addrs:172.9.9.13,
```

Related Commands-

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

show vservice statistics

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

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

Syntax Description

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

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin
network-operator

Command History

Release	Modification
4.2(1)SV1(5.2)	The name of the command is changed.
4.2(1)SV1(5.1)	This command is changed to show the vservice statistic details
4.0(4)SV1(1)	This command was introduced.

Usage Guidelines

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

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

Examples

This example shows how to display statistics for a module:

```
vsm# show vservice statistics module 4
#VSN  VLAN: 0, IP-ADDR: 10.10.10.205
  Module: 4
    #VPath Packet Statistics     Ingress         Egress           Total
    Total Seen                        25             39              64
```

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

#VPath Flow Statistics
Active Flows                     0  Active Connections           0
Forward Flow Create             11  Forward Flow Destroy        11
Reverse Flow Create             11  Reverse Flow Destroy        11
Flow ID Alloc                   22  Flow ID Free                22
Connection ID Alloc             11  Connection ID Free          11
L2 Flow Create                   0  L2 Flow Destroy              0
L3 Flow Create                   0  L3 Flow Destroy              0
L4 TCP Flow Create               0  L4 TCP Flow Destroy          0
L4 UDP Flow Create              22  L4 UDP Flow Destroy         22
L4 Oth Flow Create               0  L4 Oth Flow Destroy          0
Embryonic Flow Create            0  Embryonic Flow Bloom         0
L2 Flow Timeout                  0  L2 Flow Offload              0
L3 Flow Timeout                  0  L3 Flow Offload              0
L4 TCP Flow Timeout              0  L4 TCP Flow Offload          0
L4 UDP Flow Timeout             59  L4 UDP Flow Offload         37
L4 Oth Flow Timeout              0  L4 Oth Flow Offload          0
Flow Lookup Hit                 90  Flow Lookup Miss            22
Flow Dual Lookup               112  L4 TCP Tuple-reuse           0
TCP chkfail InvalACK             0  TCP chkfail SeqPstWnd        0
TCP chkfail WndVari              0
Flow Classify Err                0  Flow ID Alloc Err            0
Conn ID Alloc Err                0  Hash Alloc Err               0
Flow Exist                       0  Flow Entry Exhaust           0
Flow Removal Err                 0  Bad Flow ID Receive         37
Flow Entry Miss                  0  Flow Full Match Err          0
Bad Action Receive               0  Invalid Flow Pair            0
Invalid Connection               0
Hash Alloc                       0  Hash Free                    0
InvalFID Lookup                 37  InvalFID Lookup Err          0
Deferred Delete                  0
```

Related Commands

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

show vsn port vethernet

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

show vsn port vethernet *port-number*

Syntax Description

port-number	Port number. The range is from 1 to 1048575.

Command Default

None

Command Modes

EXEC

SupportedUserRoles

network-admin
network-operator

Command History

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

Usage Guidelines

You can use the following operators with the **show vsn port vethernet** command:

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

Examples

This example shows how to display information about vEth port 2:

```
vsm# show vsn port vethernet 2

Veth             : Veth2
VM Name          : UD136-1
VM uuid          : 42 3b e1 60 17 e6 92 c4-3b 47 f4 b7 4c a0 be 1b
DV Port          : 7458
DVS uuid         : 90 33 3b 50 c2 11 2a 50-ae c5 0f 07 b2 b3 23 2c
Flags            : 0x148
VSN Data IP      : 192.168.136.1
Security Profile : sp1
Org              : Not set
VNSP id          : 1
IP addresses:
```

Related Commands

Command	Description
show vservice statistics	Displays Cisco VSG statistics.

state (port profile)

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

state enabled

no state enabled

Syntax Description

enabled	Enables the port profile.

Defaults

Disabled

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Examples

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

```
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** | **private-vlan** {**host** | **promiscuous**} | **trunk**}

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

Syntax Description

access	Sets the port mode access.
private-vlan	Sets the port mode to private VLAN.
host	Sets the port mode private VLAN to host.
promiscuous	Sets the port mode private VLAN to promiscuous.
trunk	Sets the port mode to trunk.

Defaults

Switchport mode is not set.

Command Modes

Interface configuration (config-if)

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Examples

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

```
vsm# configure
vsm(config)# interface vethernet 1
vsm(config-if)# switchport mode private-vlan host
```

This example shows how to remove the mode configuration:

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

Related Commands

Command	Description
show interface	Displays interface information.

switchport access vlan

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

switchport access vlan *vlan-id*

no switchport access vlan *vlan-id*

Syntax Description

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

Examples

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

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

This example shows how to remove the access mode configuration:

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

Related Commands

Command	Description
show interface	Displays interface information.

tcp state-checks

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

tcp state-checks [**invalid-ack** | **seq-past-window** | **window-variation**]

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

Syntax Description

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

Defaults

The default behavior of the TCP checks is as follows:

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

Command Modes

vservice global configuration (config-vservice-global)

SupportedUserRoles

network-admin

system-admin

Command History

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

Usage Guidelines

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

Examples

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

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

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

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

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

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

Related Commands

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

vlan

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

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

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

Syntax Description

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

Usage Guidelines

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

Examples

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

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

This example shows how to remove a VLAN:

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

Related Commands

Command	Description
show vlan	Displays the VTP VLAN status.

vmware port-group

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

vmware port-group *name*

no vmware port-group *name*

Syntax Description

name	Name of the VMware port group.

Defaults

None

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

To create the VMware port group, you must be in port profile configuration mode.

Examples

This example shows how to create a VMware port group:

```
vsm# configure
vsm(config)# port-profile testprofile
vsm(config-port-prof)# vmware port-group testgroup
```

This example shows how to remove the VMware port group:

```
vsm# configure
vsm(config)# port-profile testprofile
vsm(config-port-prof)# no vmware port-group testgoup
```

Related Commands

Command	Description
show port-profile name	Displays configuration information about a particular port profile.

vn-service ip-address

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

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

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

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

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

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

Syntax Description

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

Command Default

Fail close

Command Modes

Port profile configuration (config-port-prof)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

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

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

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

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

Examples

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

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

Related Commands

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

vservice

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

vservice {**node** *node_name* [**profile** *profile_name*] | **path** *svc_path_name*}

no vservice

Syntax Description

node	Specifies the service node to associate the port profile with.
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.
path	Specifies the service path (vPath) to associate the port profile with.
svc_path_name	Predefined service path name.

Defaults

None

Command Modes

Port-profile configuration (config-port-prof)

SupportedUserRoles

Network-admin

Command History

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

Usage Guidelines

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

Examples

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

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

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

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

Related Commands

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

vservice global type vsg

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

vservice global type vsg

Syntax Description

This command has no keywords or arguments.

Command Default

None

Command Modes

vservice global configuration (config-vservice-global)

SupportedUserRoles

network-admin

Command History

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

Examples

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

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

Related Commands

Command	Description
bypass asa-traffic	Configures the switch traffic to bypass the Cisco VSG nodes in a service chain.
tcp state-checks	Configures selective TCP state checks on the switch traffic.

vservice node

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

vservice node *node_name* **type** {**vsg | asa | ace**}
ip address *ip-address* | **no ip address**
adjacency {**l2** {**vlan** *vlan-number*} | {**vxlan bridge-domain** *bd-name*} | **l3**} | **no adjacency**
failmode {**close | open**} | **no failmode**

no vservice node *node_name*
no ip address
no adjacenc
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. The values include **vsg**, **asa**, or **ace**.
vsg	Specifies the Cisco VSG service node.
asa	Specifies the Cisco adaptive security appliance (ASA) service node.
ace	Specifies the Cisco application control engine (ACE) service node.
ip address	Specifies the IP address of the service node. This IP address should match the IP address of the data interface node.
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 either Layer 2 or Layer 3 mode.
l2	Specifies Layer 2 mode (uses a MAC address).
vlan	For Layer 2 mode, associates a VLAN with the node.
vlan-number	VLAN module number.
vxlan	Associates a Virtual Extendable Local Area Network (VXLAN) with the service node.
bridge-domain	Specifies a bridge-domain for the VXLAN.
bd-name	Bridge domain name.
l3	Specifies Layer 3 (using IP address) mode for the service node.
failmode	Sets the state to be in either fail close or fail open mode.
close	Drops packets if the Cisco VSG is down. This is the default value.
open	Allows the packets to pass through if the Cisco VSG is down.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles Network-admin

Command History

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

Usage Guidelines

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

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

Examples

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

```
vsm(config)# vservice node test type vsg <------- enter the vservice-node mode
vsm(config-vservice-node)# ip address 1.1.11.11
vsm(config-vservice-node)# adjacency l2 vlan 100
vsm(config-vservice-node)# fail-mode close
```

Related Commands

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

vservice path

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

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

no vservice path *svc_path_name*
no node *node_name*

Syntax Description

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

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

Network-admin

Command History

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

Usage Guidelines

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

Examples

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

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

This example shows how to disable a vservice path:

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

Related Commands

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

vservice license

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

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

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

Syntax Description

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

Defaults

None

Command Modes

EXEC

SupportedUserRoles

Network-admin

Command History

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

Usage Guidelines

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

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

Examples

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

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

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

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

This example shows how to enable volatile Cisco VSG licenses:

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

This example shows how to disable volatile Cisco ASA licenses:

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

Related Commands

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

vnm-policy-agent

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

vnm-policy-agent

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

Command History

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

Usage Guidelines

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

Examples

This example shows how enter policy agent mode:

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

Related Commands

Command	Description
configure	Enters global configuration mode.

vsn type vsg global

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

vsn type vsg global

Syntax Description

This command has no arguments or keywords.

Defaults

TCP state checks are enabled.

Command Modes

Global configuration (config)

SupportedUserRoles

network-admin

system-admin

Command History

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

Usage Guidelines

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

Examples

This example shows how to enter the VSN configuration submode:

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

Related Commands

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