

NSX Command Line Interface Reference

NSX 6.2 for vSphere

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About This Book

The *NSX Command Line Interface Reference* describes how to use the NSX for vSphere Command Line Interface (CLI) and includes examples and command overviews.

Intended Audience

This guide is intended for anyone who wants to install or use NSX in a VMware vCenter environment. The information in this guide is written for experienced system administrators who are familiar with virtual machine technology and virtual datacenter operations. This guide assumes familiarity with VMware Infrastructure 5.x, including VMware ESX, vCenter Server, and the vSphere Client.

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation go to <http://www.vmware.com/support/pubs>.

Document Feedback

VMware welcomes your suggestions for improving our documentation. If you have comments, send your feedback to docfeedback@vmware.com.

NSX Documentation

The following documents comprise the NSX documentation set:

- *NSX Installation Guide*
- *NSX Cross-vCenter Installation Guide*
- *NSX Upgrade Guide*
- *NSX Administration Guide*
- *NSX Command Line Interface Reference*
- *NSX API Guide*

Introduction to the NSX CLI

IT organizations have gained significant benefits as a direct result of server virtualization. Server consolidation reduced physical complexity, increased operational efficiency and the ability to dynamically re-purpose underlying resources to quickly and optimally meet the needs of increasingly dynamic business applications.

VMware's Software Defined Data Center (SDDC) architecture is now extending virtualization technologies across the entire physical data center infrastructure. VMware NSX®, the network virtualization platform, is a key product in the SDDC architecture. With NSX, virtualization delivers for networking what it has already delivered for compute and storage. In much the same way that server virtualization programmatically creates, snapshots, deletes and restores software-based virtual machines (VMs), NSX network virtualization programmatically creates, snapshots, deletes, and restores software-based virtual networks. The result is a completely transformative approach to networking that not only enables data center managers to achieve orders of magnitude better agility and economics, but also allows for a vastly simplified operational model for the underlying physical network. With the ability to be deployed on any IP network, including both existing traditional networking models and next-generation fabric architectures from any vendor, NSX is a completely non-disruptive solution. In fact, with NSX, the physical network infrastructure you already have is all you need to deploy a software-defined data center.

To use the NSX virtual appliance CLI, you must have console or ssh access to an NSX virtual appliance. Each NSX virtual appliance contains a command line interface (CLI). The viewable modes in the NSX CLI can differ based on the assigned role and rights of a user. If you are unable to access an interface mode or issue a particular command, consult your NSX administrator.

NOTE User account management in the CLI is separate from user account management in the NSX Manager user interface.

This chapter includes the following topics:

- [“Logging In and Out of the CLI”](#) on page 13
- [“Syntax Notation Used in this Document”](#) on page 14
- [“NSX Manager and NSX Edge CLI Command Modes”](#) on page 14
- [“Moving Around in the NSX Manager and NSX Edge CLI”](#) on page 15
- [“Getting Help within the NSX Manager and NSX Edge CLI”](#) on page 15

Logging In and Out of the CLI

Before you can run CLI commands, you must initiate a connection to an NSX virtual appliance.

To open a console session within the vSphere Client, select the NSX virtual appliance from the inventory panel and click the **Console** tab. You can log in to the CLI by using the default user name admin and the password you specified while installing NSX Manager.

If SSH is enabled, you can also use SSH to access the CLI.

To log out, type `exit` from either Basic or Privileged mode.

Syntax Notation Used in this Document

Run commands at the prompt as shown. Do not type the (), |, or [] symbols.

`command [optional] value (requiredA | requiredB) [optionalA | optionalB]`

Format	Instruction
<code>command</code>	Required items, enter as shown.
<code>[optional]</code>	Optional item.
<code>value</code>	Placeholder for your value.
<code>(requiredA requiredB)</code>	Choice of required items, enter one.
<code>[optionalA optionalB]</code>	Choice of optional items, enter one or none.

NSX Manager and NSX Edge CLI Command Modes

The commands available to you at any given time depend on the mode you are currently in. Not all appliances have all modes available.

	NSX Manager	NSX Edge	Standalone NSX Edge
Basic Mode (<code>ssh</code> or <code>console</code>)	yes	yes	yes
Privileged Mode (<code>enable</code>)	yes	yes	yes
Configuration Mode (<code>configure terminal</code>)	yes	no	yes
Interface Configuration Mode (<code>interface intName</code>)	yes	no	yes
L2 VPN Configuration Mode (<code>l2vpn</code>)	no	no	yes
Save Configuration with...	<code>write memory</code>	<code>write memory</code>	<code>commit</code>

Command mode descriptions:

- **Basic.** Basic mode is a read-only mode. To have access to all commands, you must enter privileged mode.
- **Privileged.** Privileged mode commands allow support-level options such as debugging and system diagnostics.
- **Configuration.** Configuration mode commands allow you to change the current configuration of utilities on an NSX virtual appliance.
- **Interface Configuration.** Interface configuration mode commands allow you to change the configuration of virtual appliance interfaces. For example, you can change the IP address and IP route for an interface.
- **L2 VPN.** L2 VPN configuration mode commands allow you to change the L2 VPN configuration, including L2 VPN server, L2 VPN username, proxy configuration, and ciphers.

NSX Manager and NSX Edge CLI Passwords

The NSX Manager appliance uses different passwords to enter basic mode and privileged mode. When you deploy an NSX Manager appliance from an OVF file you are prompted to configure both passwords. After the NSX Manager appliance has been deployed, you can change the basic mode password with the `cli password` command, and the privileged mode password with the `enable password` command.

The NSX Edge appliance uses the same password to enter basic mode and privileged mode. When you deploy an NSX Edge appliance from NSX Manager via the vSphere Web Client, you are prompted to configure the password. After the NSX Edge appliance has been deployed, you can change the password from the vSphere Web Client (Network & Security > NSX Edges > *Select an Edge* > Actions > Change CLI Credentials).

The standalone NSX Edge appliance uses different passwords to enter basic mode and privileged mode. When you deploy a standalone NSX Edge appliance from an OVF file you are prompted to configure both passwords. After the standalone NSX Edge appliance has been deployed, you can change the basic and privileged mode passwords with the `password` command.

Moving Around in the NSX Manager and NSX Edge CLI

The following commands move the pointer around on the command line.

Keystrokes	Description
CTRL+A	Moves the pointer to beginning of the line.
CTRL+B or the left arrow key	Moves the pointer back one character.
CTRL+C	Ends any operation that continues to propagate, such as a ping.
CTRL+D	Deletes the character at the pointer.
CTRL+E	Moves the pointer to end of the line.
CTRL+F or the right arrow key	Moves the pointer forward one character.
CTRL+K	Deletes all characters from the pointer to the end of the line.
CTRL+N or the down arrow key	Displays more recent commands in the history buffer after recalling commands with CTRL+P (or the up arrow key). Repeat to recall other recently run commands.
CTRL+P or the up arrow key	Recalls commands in the history, starting with the most recent completed command. Repeat to recall successively older commands.
CTRL+U	Deletes all characters from the pointer to beginning of the line.
CTRL+W	Deletes the word to the left of pointer.
ENTER	Scrolls down one line.
ESC+B	Moves the pointer back one word.
ESC+D	Deletes all characters from the pointer to the end of the word.
ESC+F	Moves the pointer forward one word.
SPACE	Scrolls down one screen.

Getting Help within the NSX Manager and NSX Edge CLI

The CLI contains the following commands to assist you.

Command	Description
?	Displays a list of available commands.
sho?	Displays a list of commands that begin with a particular character string (NSX Manager only).
sho<TAB>	Completes a partial command name.
show ?	Lists the associated keywords of a command.
show log ?	Lists the associated arguments of a keyword.
list	Displays the verbose options of all commands for the current mode (NSX Manager only).

NSX Manager Commands

This chapter describes NSX Manager CLI commands. Log in as the user `admin` to use the NSX Manager commands.

cli password

Changes the password of the current command line user. The default command line user is `admin`.

Synopsis

```
cli password
```

CLI Mode

Configuration

Example

```
nsx-mgr(config)# cli password newpassword
```

configure terminal

Switches to Configuration mode from Privileged mode.

Synopsis

```
configure terminal
```

CLI Mode

Privileged

Example

```
nsx-mgr# configure terminal  
nsx-mgr(config)#
```

disable

Switches to Basic mode from Privileged mode.

Synopsis

```
disable
```

CLI Mode

Basic

Example

```
nsx-mgr# disable
nsx-mgr>
```

Related Commands

[enable](#)

enable

Switches to Privileged mode from Basic mode.

Synopsis

```
enable
```

CLI Mode

Basic

Example

```
nsx-mgr> enable
Password:
nsx-mgr#
```

Related Commands

[disable](#)

enable password

Changes the Privileged mode password. You should change the Privileged mode password for each NSX virtual machine. CLI user passwords and the Privileged mode password are managed separately. The Privileged mode password is the same for each CLI user account.

Synopsis

```
enable password password
```

Option	Description
<i>password</i>	The new password to use.

CLI Mode

Configuration

Example

```
nsx-mgr# configure terminal
nsx-mgr(config)# enable password abcd123
```

Related Commands

[enable](#)

exit

Exits from the current mode and switches to the previous mode, or exits the CLI session if run from Privileged or Basic mode.

Synopsis

```
exit
```

CLI Mode

Basic, Privileged, Configuration, and Interface Configuration

Example

```
nsx-mgr(config-if)# exit
nsx-mgr(config)# exit
nsx-mgr#
```

Related Commands

[quit](#)

export tech-support scp

Exports the system diagnostics to a specific location via Secure Copy Protocol (SCP). You can also export system diagnostics for an NSX virtual machine from the NSX Manager user interface.

Synopsis

```
export tech-support scp url
```

Option	Description
<i>url</i>	Enter the username and complete path of the destination. Standard scp/ssh syntax is used for username and machine name.

CLI Mode

Basic and Privileged

Example

```
nsx-mgr# export tech-support scp user123@host123:file123
```

Related Commands

[show tech-support](#)

hostname

Changes the host name of the machine, which is used as the CLI prompt.

Synopsis

```
hostname newhostname
```

Option	Description
<i>newhostname</i>	Prompt name to use.

CLI Mode

Configuration

Example

```
nsx-mgr(config)# hostname vs123
vs123(config)#
```

interface

Switches to Interface Configuration mode for the specified interface.

To delete the configuration of an interface, use `no` before the command.

Synopsis

```
[no] interface mgmt
```

Option	Description
mgmt	The management port on an NSX virtual machine.

CLI Mode

Configuration

Example

```
nsx-mgr# configure terminal
nsx-mgr(config)# interface mgmt
nsx-mgr(config-if)#

or

nsx-mgr(config)# no interface mgmt
```

ip address

Assigns an IP address to an interface. On the NSX Manager appliance, you can assign an IP address to the management interface only.

To remove an IP address from an interface, use `no` before the command.

Synopsis

```
[no] ip address ipAddress/netmask
```

CLI Mode

Interface Configuration

Example

```
nsx-mgr(config)# interface mgmt
nsx-mgr(config-if)# ip address 192.168.110.200/24

or

nsx-mgr(config)# interface mgmt
nsx-mgr(config-if)# no ip address 192.168.110.200/24
```

ip route

Adds a static route.

To delete an IP route, use `no` before the command.

Synopsis

```
[no] ip route ipAddress/netmask gatewayIP
```

CLI Mode

Configuration

Example

```
nsx-mgr# configure terminal
nsx-mgr(config)# ip route 0.0.0.0/0 192.168.1.1

or

nsx-mgr(config)# no ip route 0.0.0.0/0 192.168.1.1
```

list

Lists all in-mode commands.

Synopsis

```
list
```

CLI Mode

Basic, Privileged, Configuration, Interface Configuration

Examples

```
nsx-mgr> list
enable
exit
list
ping WORD
.
.
.
```

ping

Pings a destination by its hostname or IP address.

Synopsis

```
ping (hostName | ipAddress)
```

CLI Mode

Basic, Privileged

Usage Guidelines

Enter CTRL+C to end ping replies.

Example

```
nsx-mgr# ping 192.168.1.1
```

quit

Quits Interface Configuration mode and switches to Configuration mode, or quits the CLI session if run from Privileged or Basic mode.

Synopsis

```
quit
```

CLI Mode

Basic, Privileged, and Interface Configuration

Example

```
nsx-mgr(config-if)# quit
nsx-mgr(config)#
```

Related Commands

[exit](#)

reset

Resets the terminal settings to remove the current screen output and return a clean prompt.

Synopsis

```
reset
```

CLI Mode

Basic, Privileged, Configuration

Example

```
manager# reset
```

Related Commands

```
terminal length
terminal no length
```

reboot

Reboots an NSX virtual appliance.

Synopsis

```
reboot
```

CLI Mode

Privileged

Related Commands

```
shutdown
```

set clock

Sets the date and time if not using an NTP server.

Synopsis

```
set clock HH:MM:SS MM DD YYYY
```

Option	Description
<i>HH:MM:SS</i>	Hours:minutes:seconds
<i>MM</i>	Month
<i>DD</i>	Day
<i>YYYY</i>	Year

CLI Mode

Privileged

Example

```
nsx-mgr# set clock 23:19:12 04 07 2015
nsx-mgr#
```

Related Commands

```
show clock
```

setup

Opens the CLI initialization wizard for NSX virtual machine installation. You configure multiple settings by using this command. You run the setup command during NSX Manager installation. Press ENTER to accept a default value.

Synopsis

```
setup
```

CLI Mode

Privileged

Example

```
manager(config)# setup
Default settings are in square brackets '['].
Hostname [manager]:
IP Address (A.B.C.D or A.B.C.D/MASK): 192.168.0.253
Default gateway (A.B.C.D): 192.168.0.1
Old configuration will be lost, and system needs to be rebooted
Do you want to save new configuration (y/[n]): y
Please log out and log back in again.
```

show arp

Shows the ARP table.

Synopsis

```
show arp
```

CLI Mode

Basic, Privileged

Example

```
nsx-mgr# show arp
IP address      HW type   Flags      HW address      Mask      Device
192.0.2.130    0x1      0x6        00:00:00:00:00:81 *         virteth1
192.168.110.1  0x1      0x2        00:0F:90:D5:36:C1 *         mgmt
```

show clock

Shows the current time and date of the virtual machine. If you use an NTP server for time synchronization, the time is based on Coordinated Universal Time (UTC).

Synopsis

```
show clock
```

CLI Mode

Basic, Privileged

Example

```
nsx-mgr# show clock
Tue Apr 7 23:21:10 UTC 2015
```

Related Commands

[set clock](#)

show ethernet

Shows Ethernet information for virtual machine interfaces.

Synopsis

```
show ethernet
```

CLI Mode

Basic, Privileged

Example

```

nsx-mgr# show ethernet
Settings for mgmt:
  Supported ports: [ TP ]
  Supported link modes: 10baseT/Half 10baseT/Full
                       100baseT/Half 100baseT/Full
                       1000baseT/Full
  Supports auto-negotiation: Yes
  Advertised link modes: 10baseT/Half 10baseT/Full
                       100baseT/Half 100baseT/Full
                       1000baseT/Full
  Advertised auto-negotiation: Yes
  Speed: 100Mb/s
  Duplex: Full

```

show filesystem

Shows the hard disk drive capacity for an NSX virtual machine. NSX Manager has two disk drives.

Synopsis

```
show filesystem
```

CLI Mode

Basic, Privileged

Example

```

nsx-mgr# show filesystem
Filesystem      Size  Used Avail Use% Mounted on
/dev/hda3       4.9G  730M  3.9G  16% /
/dev/hda6       985M   17M  919M   2% /tmp
/dev/hda7       24G   1.7G  21G   8% /common

```

show log

Shows the appmgmt, manager, or system log of the NSX Manager.

Synopsis

```
show log (appmgmt | manager | system) [follow | reverse | size | last n]
```

Option	Description
follow	Update the displayed log.
reverse	Show the log in reverse chronological order.
size	Show the log size.
last <i>n</i>	Show the last <i>n</i> number of events in the log.

CLI Mode

Basic, Privileged

Example

```

nsx-mgr# show log manager last 3
=====vsm.log=====
2015-04-28 23:10:00.281 GMT  INFO TaskFrameworkExecutor-24 ScheduleSynchronizer:60 - Releasing a
thread to executor pool and executor pool active count 0

```

```
2015-04-28 23:10:25.869 GMT INFO edgeVseMonitoringThread EdgeVseHealthMonitoringThread:219 -
    Finished Health check for 4 edge vms in 0 sec
2015-04-28 23:12:25.878 GMT INFO edgeVseMonitoringThread EdgeVseHealthMonitoringThread:219 -
    Finished Health check for 4 edge vms in 0 sec
```

show slots

Shows the software images on the slots of an NSX virtual machine. Boot indicates the image that is used to boot the virtual machine.

Synopsis

```
show slots
```

CLI Mode

Basic, Privileged

Example

```
manager# show slots
Recovery: System Recovery v0.3.2
Slot 1:    13Aug09-09.49PDT
Slot 2:    * 16Aug09-23.52PDT (Boot)
```

show tech-support

Shows the system diagnostic log that can be sent to technical support by running the `export tech-support scp` command.

Synopsis

```
show tech-support
```

CLI Mode

Basic, Privileged

Example

```
nsx-mgr# show tech-support
```

shutdown

In Privileged mode, the `shutdown` command powers off the virtual machine. In Interface Configuration mode, the `shutdown` command disables the interface.

To enable a disabled interface, use `no` before the command.

Synopsis

```
[no] shutdown
```

CLI Mode

Privileged, Interface Configuration

Example

```
nsx-mgr# shutdown

OR

nsx-mgr(config)# interface mgmt
nsx-mgr(config-if)# shutdown
nsx-mgr(config-if)# no shutdown
```

Related Commands[reboot](#)**ssh**

Starts or stops the SSH service on an NSX virtual appliance.

Synopsis

```
ssh (start | stop)
```

CLI Mode

Privileged

Example

```
manager# ssh start
```

or

```
manager# ssh stop
```

terminal length

Sets the number of rows to display at a time in the CLI terminal.

Synopsis

```
terminal length n
```

Option	Description
<i>n</i>	Enter the number of rows to display, between 0 and 512. If length is 0, no display control is performed.

CLI Mode

Privileged

Example

```
manager# terminal length 50
```

Related Commands[terminal no length](#)**terminal no length**

Negates the `terminal length` command.

Synopsis

```
terminal no length
```

CLI Mode

Privileged

Example

```
manager# terminal no length
```

Related Commands[terminal length](#)

traceroute

Traces the route to a destination.

Synopsis

```
traceroute (hostname | ip_address)
```

Option	Description
<i>hostname</i> <i>ip_address</i>	The hostname or IP address of the target system.

CLI Mode

Basic, Privileged

Example

```
nsx-mgr# traceroute 10.16.67.118
traceroute to 10.16.67.118 (10.16.67.118), 30 hops max, 40 byte packets
 1 10.115.219.253 (10.115.219.253) 128.808 ms 74.876 ms 74.554 ms
 2 10.17.248.51 (10.17.248.51) 0.873 ms 0.934 ms 0.814 ms
 3 10.16.101.150 (10.16.101.150) 0.890 ms 0.913 ms 0.713 ms
 4 10.16.67.118 (10.16.67.118) 1.120 ms 1.054 ms 1.273 ms
```

user

Adds a CLI user account. The user `admin` is the default user account. The CLI admin account and password are separate from the NSX Manager user interface admin account and password.

IMPORTANT Each NSX virtual machine has two built-in CLI user accounts for system use: `nobody` and `vs_comm`. Do not delete or modify these accounts. If these accounts are deleted or modified, the virtual machine will not work.

To remove a CLI user account, use `no` before the command.

Synopsis

```
[no] user username password (hash | plaintext) password
```

Option	Description
<i>username</i>	Login name of the user.
<code>hash</code>	Masks the password by using the MD5 hash.
<code>plaintext</code>	Keeps the password unmasked.
<i>password</i>	Password to use.

CLI Mode

Configuration

Example

```
nsx-mgr(config)# user newuser1 password plaintext abcd1234
or
nsx-mgr(config) no user newuser1
```

Related Commands

[cli password](#)

user *userName* privilege web-interface

Allows the specified CLI user to run REST API calls.

Synopsis

```
user userName privilege web-interface
```

CLI Mode

Configuration

Example

```
nsx-mgr(config)# user admin privilege web-interface
```

web-manager

Starts the NSX Management Service. To stop the NSX Management Service, use `no` before the command. When starting the NSX Management Service, it can take a few minutes after getting the OK message for the NSX Management Service to reach the Running state. You can check the status in the NSX Manager Virtual Appliance web interface by clicking View Summary.

Synopsis

```
[no] web-manager
```

CLI Mode

Configuration

Example

```
nsxmgr-1-01a(config)# no web-manager
Stopping the web manager ...
OK
nsxmgr-1-01a(config)# web-manager
Starting the web manager ...
OK
```

write memory

Writes the current configuration to memory.

Synopsis

```
write memory
```

CLI Mode

Configuration and Interface Configuration

Example

```
manager# write memory
```

NSX Central Commands

The chapter includes the following topics:

- [“Central Commands Overview”](#) on page 29
- [“Central Common Commands”](#) on page 30
- [“Central Controller Commands”](#) on page 31
- [“Central Logical Router Commands”](#) on page 32
- [“Central Logical Switch Commands”](#) on page 44
- [“Central Distributed Firewall Commands”](#) on page 53
- [“Central NSX Edge Commands”](#) on page 58

Central Commands Overview

These commands are run from the NSX Manager and retrieve information from the NSX Manager and other devices. The commands allow you to easily compare information from different devices without having to log into each of them. These commands only retrieve information, you must log into the specific device to make configuration changes.

Log in as user `admin` to use the NSX central commands.

In a cross-vCenter NSX environment, there are multiple NSX Managers. When you log in to an NSX Manager you can retrieve information about objects that are local to that NSX Manager, and information about universal objects. You cannot retrieve information about objects that are local to a different NSX Manager.

You will need some information about your environment in order to use the central commands. The following commands will help you find the appropriate information.

Table 3-1. Finding information to use in central commands

Command keyword	Commands to find valid input
controller	<code>show controller list all</code>
host	Show all clusters: <code>show cluster all</code> Then show hosts in a specific cluster: <code>show cluster clusterID</code> Or show all hosts associated with a specific logical router: <code>show logical-router list dlr dlrID host</code>
switch	<code>show logical-switch list all</code>
dlr	<code>show logical-router list all</code>

Table 3-1. Finding information to use in central commands

Command keyword	Commands to find valid input
edge	show edge all (note: lists logical routers and NSX edges)
filters	Show all clusters: show cluster all Then show hosts in a specific cluster: show cluster <i>clusterID</i> Then show all VMs on a host: show host <i>hostID</i> Then show information for a VM, which includes filters: show vm <i>vmID</i>

Central Common Commands

show cluster

Shows all clusters, or shows the hosts in the specified cluster.

Synopsis

```
show cluster (all | clusterID)
```

CLI Mode

Basic

Example

```
nsx-mgr> show cluster all
```

No.	Cluster Name	Cluster Id	Datacenter Name	Firewall Status
1	Compute Cluster A	domain-c25	ABC Medical	Enabled
2	Management and Edge Cluster	domain-c7	ABC Medical	Enabled
3	Compute Cluster B	domain-c27	ABC Medical	Enabled

or

```
nsx-mgr> show cluster domain-c25
```

Datacenter: ABC Medical
Cluster: Compute Cluster A

No.	Host Name	Host Id	Installation Status
1	esxcomp-01a.corp.local	host-29	Ready
2	esxcomp-02a.corp.local	host-34	Ready

show host *hostID*

Shows VMs on the specified host.

Synopsis

```
show host hostID
```

CLI Mode

Basic

Example

```
nsx-mgr> show host host-29
```

Datacenter: ABC Medical
Cluster: Compute Cluster A
Host: esxcomp-01a.corp.local

No.	VM Name	VM Id	Power Status
1	br-sv-02a	vm-32	off
2	web-sv-01a	vm-36	on

show vm *vmID*

Shows information about the specified VM, including vNIC Name and ID, and filters.

Synopsis

```
show controller list all
```

CLI Mode

Basic

Example

```

nsx-mgr> show vm vm-36
Datacenter: ABC Medical
Cluster: Compute Cluster A
Host: esxcomp-01a.corp.local
VM: web-sv-01a
Virtual Nics List:
1.
Vnic Name      web-sv-01a - Network adapter 1
Vnic Id        5026c7cd-b6f3-f4bc-e533-3d4b255c6277.000
Filters        nic-54466-eth0-vmware-sfw.2

```

show vnic *vnicID*

Shows information about the specified vNIC.

Synopsis

```
show controller list all
```

CLI Mode

Basic

Example

```

nsx-mgr> show vnic 5026c7cd-b6f3-f4bc-e533-3d4b255c6277.000
Vnic Name      web-sv-01a - Network adapter 1
Vnic Id        5026c7cd-b6f3-f4bc-e533-3d4b255c6277.000
Mac Address    00:50:56:a6:7a:a2
Port Group Id  dvportgroup-198
Filters        nic-54466-eth0-vmware-sfw.2

```

Central Controller Commands

show controller list all

Shows all controllers. This information is retrieved from NSX Manager.

Synopsis

```
show controller list all
```

CLI Mode

Basic

Example

```

nsx-mgr> show controller list all
NAME                IP                State
controller-4       192.168.110.203   RUNNING
controller-3       192.168.110.202   RUNNING
controller-1       192.168.110.201   RUNNING

```

Central Logical Router Commands

show logical-router controller *controllerID* dlr *dlrID* bridge (all | *bridgeID*)

Shows information about bridges configured on a logical router. This information is retrieved from the specified controller. Use *all* to show information for all bridges, or use *bridgeID* to show information for a specific bridge.

Synopsis

```
show logical-router controller controllerID dlr dlrID bridge (all | bridgeID)
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller master dlr edge-2 bridge all
LR-Id      Bridge-Id  Host           Active
0x1388     1          192.168.110.53 true
masterControllerIp=192.168.110.203
```

or

```
nsx-mgr> show logical-router controller master dlr edge-2 bridge 1
LR-Id      Bridge-Id  Host           Active
0x1388     1          192.168.110.53 true
masterControllerIp=192.168.110.203
```

show logical-router controller *controllerID* dlr *dlrID* bridge (all | *bridgeID*) mac-address-table

Shows the mac address table for bridges configured on a logical router. This information is retrieved from the specified controller. Use *all* to show the mac address table for all bridges, or use *bridgeID* to show the mac address table for a specific bridge.

Synopsis

```
show logical-router controller controllerID dlr dlrID bridge (all | bridgeID) mac-address-table
```

CLI Mode

Basic

Example

```
show logical-router controller master dlr edge-2 bridge 1 mac-address-table
LR-Id      Bridge-Id  Mac           Vlan-Id Vxlan-Id Port-Id  Source
0x1388     1          68:ef:bd:4e:98:4c 100     0        50331650 vlan
masterControllerIp=192.168.110.203
```

show logical-router controller *controllerID* dlr *dlrID* brief

Shows information about a logical router. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-router controller (master | controllerID) dlr dlrID brief
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller master dlr edge-1 brief
```

LR-Id	LR-Name	Universal	Service-Controller	Egress-Locale	In-Sync	Sync-Category
0x1388	default+edge-1	false	192.168.110.203	local	Yes	NORMAL

masterControllerIp=192.168.110.203

Related Commands

`show logical-router host hostID dlr dlrID`

show logical-router controller *controllerID* dlr *dlrID* interface

Shows interface information for a logical router. Show information for a single interface by specifying the interface name. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

`show logical-router controller (master | controllerID) dlr dlrID interface [intName]`

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller master dlr edge-1 interface
Interface                Type  Id                IP[ ]
13880000000b             vxlan 5002(0x138a)     172.16.20.1/24
13880000000a             vxlan 5001(0x1389)     172.16.10.1/24
13880000000c             vxlan 5003(0x138b)     172.16.30.1/24
138800000002             vxlan 5000(0x1388)     192.168.10.2/29
masterControllerIp=192.168.110.203
```

or

```
nsx-mgr> show logical-router controller master dlr edge-1 interface 13880000000a
```

```
Interface-Name: 13880000000a
Logical-Router-Id:0x1388
Id:              0x1389
Type:            vxlan
IP:              172.16.10.1/24
DVS-UUID:        88eb0e50-96af-1df1-36fe-c1efa1515149
                  58920e50-931f-c4b2-af82-c947ae1e6250
Mac:             02:50:56:56:44:52
Mtu:             1500
Multicast-IP:    0.0.0.1
Designated-IP:
Flags:           0x280
Bridge-Id:
Bridge-Name:
DHCP-relay-server:
```

masterControllerIp=192.168.110.203

Related Commands

`show logical-router host hostID dlr dlrID interface intName verbose`

show logical-router controller *controllerID* dlr *dlrID* route

Shows the routes configured on a logical router. Specify the IP address and netmask to see routes configured for a specific network. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

`show logical-router controller (master | controllerID) dlr dlrID route [ipAddress/netmask]`

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller master dlr edge-1 route
Destination      Next-Hop[]      Preference  Locale-Id      Source
0.0.0.0/0        192.168.10.1    0           00000000-0000-0000-0000-000000000000  CONTROL_VM
masterControllerIp=192.168.110.203
```

Related Commands

```
show logical-router host hostID dlr dlrID route
```

show logical-router controller *controllerID* dlr *dlrID* statistics

Shows statistics for a logical router. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-router controller (master | controllerID) dlr dlrID statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller master dlr edge-1 statistics
host.reports.received      6
host.reports.dropped       0
edge.routes.received       6
edge.routes.dropped        0
bridge.reports.received    0
bridge.reports.dropped     0
bridge.macs.received       0
bridge.macs.dropped        0
route.queries.received     0
interface.queries.received 0
mac.queries.received       0
clear.routes.received      1
clear.macs.received        0
errdecode.messages.dropped 0
memfull.messages.dropped   0
errserver.messages.dropped 0
notifications.error        0

masterControllerIp=192.168.110.203
```

show logical-router controller *controllerID* host *hostIP* connection

Shows the IP of a host's connection to the specified controller.

Synopsis

```
show logical-router controller controllerID host hostIP connection
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller controller-1 host 192.168.210.51 connection
Connection IP: 192.168.210.51
Version:      6.2
```

show logical-router controller *controllerID* statistics

Shows statistics for all logical routers. This information is retrieved from the specified controller.

Synopsis

```
show logical-router controller controllerID statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router controller controller-1 statistics
messages.query          0
messages.update        0
messages.flush         0
messages.notification 0
```

show logical-router host *hostID* connection

Shows all logical router connections on the specified host.

Synopsis

text

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 connection

Host locale Id:          42294beb-799b-4560-3f29-9a5eb70c884a

Connection Information:
-----

DvsName          VdrPort          NumLifs  VdrVmac
-----
Compute_VDS     vdrPort          4        02:50:56:56:44:52
  Teaming Policy: Default Teaming
  Uplink   : Uplink 1(50331650): 00:50:56:ff:61:12(Team member)

Stats : Pkt Dropped      Pkt Replaced      Pkt Skipped
Input : 0                 0                  1642554
Output: 9                 5                  591084
```

show logical-router host *hostID* dlr *dlrID*

Shows information about a logical router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dlrID (brief | verbose)
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-1 brief
```

```
VDR Instance Information :
-----
```

```
Legend: [A: Active], [D: Deleting], [X: Deleted], [I: Init]
Legend: [SF-R: Soft Flush Route], [SF-L: Soft Flush LIF]
```

Vdr Name	Vdr Id	#Lifs	#Routes	State	Controller Ip	CP Ip
default+edge-1	0x1388	4	5	A	192.168.110.203	192.168.210.51

or

```
nsx-mgr> show logical-router host host-29 dlr edge-1 verbose
```

```
VDR Instance Information :
-----
```

```
Vdr Name:                default+edge-1
Vdr Id:                  0x00001388
Number of Lifs:          4
Number of Routes:        5
State:                   Enabled
Controller IP:           192.168.110.203
Control Plane IP:        192.168.210.51
Control Plane Active:    Yes
Num unique nexthops:     1
Generation Number:       0
Edge Active:             No
```

Related Commands

```
show logical-router controller controllerID dlr dlrID brief
```

show logical-router host *hostID* dlr *dlrID* arp

Shows the ARP table for the logical router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dlrID arp
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-1 arp
```

```
VDR default+edge-1 ARP Information :
Legend: [S: Static], [V: Valid], [P: Proxy], [I: Interface]
Legend: [N: Nascent], [L: Local], [D: Deleted]
```

Network	Mac	Flags	Expiry	SrcPort	Refcnt	Interface
192.168.10.2	02:50:56:56:44:52	VI	permanent	0	1	138800000002
172.16.10.1	02:50:56:56:44:52	VI	permanent	0	1	13880000000a
172.16.10.11	00:50:56:a6:7a:a2	VL	151	50331657	2	13880000000a
172.16.30.1	02:50:56:56:44:52	VI	permanent	0	1	13880000000c
172.16.30.11	00:50:56:a6:ba:09	V	151	50331650	4	13880000000c
172.16.20.1	02:50:56:56:44:52	VI	permanent	0	1	13880000000b

show logical-router host *hostID* dlr *dlrID* bridge *bridgeName* mac-address-table

Shows MAC address table for a bridge configured on a logical router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dLrID bridge bridgeName mac-address-table
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-100 dlr edge-17 bridge VLAN3 mac-address-table
```

VDR 'default+edge-17' bridge 'VLAN3' mac address table :

```
total number of MAC addresses: 2
number of MAC addresses returned: 2
Destination Address  Address Type  VLAN ID  VXLAN ID  Destination Port  Age
-----
00:50:56:9c:2a:99   Dynamic      0        6          50331653         1
00:50:56:9c:2a:88   Static       0        6          50331653        20
```

```
total number of MAC addresses: 1
number of MAC addresses returned: 1
Destination Address  Address Type  VLAN ID  VXLAN ID  Destination Port  Age
-----
00:11:11:11:11:11   Static       8        0           9999         103
```

hostId=host-100

show logical-router host *hostID* dlr *dLrID* bridge *bridgeName* statistics

Shows statistics for a bridge configured on a logical-router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dLrID bridge bridgeName statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-100 dlr edge-17 bridge VLAN3 statistics
```

VDR 'default+edge-17' bridge 'VLAN3' stats :

Bridge stats:

```
portNotExist: 0
```

Network 'vxlan-5000-type-(null)' stats:

```
fdbHit: 0
fdbLearn: 0
fdbUpdate: 0
fdbTableFull: 0
fdbChain: 0
fdbAged: 0
fdbMacMoved: 0
fdbMacHit: 0
FRPFilterLeafTx: 0
FRPFilterBridged: 0
fdbUplinkFilter: 0
```

Network port ID '0x3000005' stats:

```
pktsTx: 0
pktsTxMulticast: 0
pktsTxBroadcast: 0
pktsRx: 0
```

```

        pktsRxMulticast:      0
        pktsRxBroadcast:     0
        droppedTx:           0
        droppedRx:           0
        mappedLenTooShort:   0
        pktsBridged:         0
        pktsDroppedBridged:  0
        pktsDroppedUplink:   0
        droppedTxPortMismatch: 0
        droppedTxVxlanPktToVlan: 0

Network 'vxlan-5000-type-(null)' stats:
fdbHit:      0
fdbLearn:    0
fdbUpdate:   0
fdbTableFull: 0
fdbChain:    0
fdbAged:     0
fdbMacMoved: 0
fdbMacHit:   0
FRPFilterLeafTx: 0
FRPFilterBridged: 0
fdbUplinkFilter: 0

        Network port ID '0x3000005' stats:
        pktsTx:      0
        pktsTxMulticast: 0
        pktsTxBroadcast: 0
        pktsRx:      0
        pktsRxMulticast: 0
        pktsRxBroadcast: 0
        droppedTx:    0
        droppedRx:    0
        mappedLenTooShort: 0
        pktsBridged: 0
        pktsDroppedBridged: 0
        pktsDroppedUplink: 0
        droppedTxPortMismatch: 0
        droppedTxVxlanPktToVlan: 0

```

show logical-router host *hostID* dlr *dLrID* bridge *bridgeName* verbose

Shows information for a bridge configured on a logical router. This information is retrieved from the specified host. *bridgeName* can be all to show all configured bridges.

Synopsis

```
show logical-router host hostID dlr dLrID bridge (all | bridgeName) verbose
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-100 dlr edge-17 bridge VLAN3 verbose
```

```
VDR 'default+edge-17' bridge 'VLAN3' config :
```

```
Bridge config:
```

```
Name:id          VLAN3:1
Portset name:
DVS name:        DemoDSData
Ref count:       2
Number of networks: 2
Number of uplinks: 2
```

```
Network 'vxlan-5000-type-(null)' config:
```

```

Ref count:          2
Network type:       2
VLAN ID:            0
VXLAN ID:           5000
Ageing time:        300
Fdb entry hold time: 1

```

```

Network port ID '0x3000017' config :

```

```

Ref count:          1
Port ID:            0x3000017
VLAN ID:            4095
IOChains installed: 0

```

```

Network 'vxlan-3-type-(null)' config:

```

```

Ref count:          2
Network type:       2
VLAN ID:            3
VXLAN ID:           0
Ageing time:        300
Fdb entry hold time: 1
FRP filter enable: 1

```

```

Network port ID '0x3000017' config :

```

```

Ref count:          1
Port ID:            0x3000017
VLAN ID:            4095
IOChains installed: 0

```

```
hostId=host-100
```

```
or
```

```
nsx-mgr> show logical-router host host-100 dlr edge-17 bridge all verbose
```

```
VDR 'LDR-1' bridge 'testbridge' config :
```

```
Bridge config:
```

```

Name:id             testbridge:2
Portset name:
DVS name:           opaque-switch-1
Ref count:          1
Number of networks: 2
Number of uplinks: 0

```

```
Network 'vxlan-41992-type-bridging' config:
```

```

Ref count:          1
Network type:       1
VLAN ID:            0
VXLAN ID:           41992
Ageing time:        300
Fdb entry hold time:1
FRP filter enable: 1

```

```
Network port ID '0x3000005' config:
```

```

Ref count:          1
Port ID:            0x3000005
VLAN ID:            4095
IOChains installed: 0

```

```
Network 'vxlan-43784-type-bridging' config:
```

```

Ref count:          1
Network type:       1
VLAN ID:            0
VXLAN ID:           43784
Ageing time:        300
Fdb entry hold time:1
FRP filter enable: 1

```

```
Network port ID '0x3000005' config:
```

```

Ref count:          1
Port ID:            0x3000005
VLAN ID:            4095
IOChains installed: 0

```

show logical-router host *hostID* dlr *dlrID* control-plane-statistics

Shows control plane statistics for a logical router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dlrID control-plane-statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-1 control-plane-statistics
```

VDR Instance default+edge-1 Control Plane Message Statistics:

```

Num Link UP RX:          1
Num Link DOWN RX:       0
Num Edge Link UP RX:    0
Num Edge Link DOWN RX:  1
Num Route ADD RX:       10
Err Route ADD:          0
Num Route DEL RX:       6
Err Route DEL:          0
Err Route DEL Match:    2
DUP Route RX:           0
Num Route EOM RX:       1
Err Route Nexthop Add:  0
Err Route Nexthop Del:  0
Num Lif ADD RX:         4
Err Lif ADD:            0
Num Lif DEL RX:         0
Err Lif Generic:        0
DUP Lif RX:             2
Num Lif EOM:            1
Num Lif IP ADD RX:      0
Num LIF IP DEL RX:      0
Num Lif DI Update RX:   0
Num Lif Status Change RX: 0
Num Flush LIF RX:       1
Num Flush Route RX:     2

```

show logical-router host *hostID* dlr *dlrID* interface *intName* brief

Shows brief information for an interface on a logical router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dlrID interface intName brief
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-1 interface 1388000000a brief
```

VDR default+edge-1 LIF Information :

State Legend: [A:Active], [d:Deleting], [X:Deleted], [I:Init],[SF-L:Soft Flush LIF]
 Modes Legend: [B:Bridging],[E: Empty], [R:Routing],[S:Sedimented],[D:Distributed]
 Modes Legend: [In:Internal],[Up:Uplink],[St:Static]

Lif Name	Id	Mode	State	Ip(Mask)
-----	--	-----	-----	-----
13880000000a	Vxlan:5001	R,D,In	A	172.16.10.1(255.255.255.0)

Related Commands

`show logical-router controller controllerID dlr dlrID interface`

show logical-router host *hostID* dlr *dlrID* interface *intName* statistics

Shows statistics for an interface on a logical router. This information is retrieved from the specified host.

Synopsis

`show logical-router host hostID dlr dlrID interface intName statistics`

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-3 interface 13880000000a statistics
```

VDR default+edge-1 LIF 13880000000a Statistics :

```

RX Unicast Packets on the interface:    457
RX Unicast Bytes on the interface:      0
TX Unicast Packets on the interface:    0
RX Broadcast Packets on the interface:  0
RX Broadcast Bytes on the interface:    0
TX Broadcast Packets on the interface:  0
TX Broadcast Bytes on the interface:    0
RX Multicast Packets on the interface:  0
RX Multicast Bytes on the interface:    0
RX Packets System Error on interface:   0
TX Ref Errors on the interface:         0
Packets Deferred Free on the interface: 0
RX Packets Dropped on interface:       0

```

LIF Net Statistics (approx.):

```

IP & ARP packets RX:                    462
IP & ARP packets TX:                    4
IP packets Forwarded to Lif:            0
IP packets Consumed:                    0
IP packets Fragmented:                  0
IP packets Ignored:                     0
ARP Request RX:                          3
ARP Request TX:                          2
ARP Response RX:                         2
ARP Response TX:                         1
ARP Request for Proxy RX:                0
ARP Request for Proxy My IP RX:          0
GARP RX:                                  0
GARP TX:                                  1
ARP Probes TX:                           0
ICMP Echo Req RX:                        0
ICMP Echo Rsp TX:                        0
ICMP Time Exceeded TX:                   0
TTL Zero Drops:                          0
Bad Checksum Drops:                      0
Arp HoldPkts Drops:                      0
Packet Allocation Failure:                0
Route not found to Dest:                  0

```

Neighbor not found: 0

show logical-router host *hostID* dlr *dLrID* interface *intName* verbose

Shows information for an interface on a logical router. This information is retrieved from the specified host. *intName* can be all to show verbose information for all interfaces.

Synopsis

```
show logical-router host hostID dlr dLrID interface (all | intName) verbose
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-1 interface all verbose
```

VDR default+edge-1 LIF Information :

```
Name:          138800000002
Mode:          Routing, Distributed, Uplink
Id:           Vxlan:5000
Ip(Mask):      192.168.10.2(255.255.255.248)
Connected Dvs: Compute_VDS
VXLAN Control Plane: Enabled
VXLAN Multicast IP: 0.0.0.1
State:        Enabled
Flags:        0x2208
DHCP Relay:   Not enabled
```

```
Name:          138800000000a
Mode:          Routing, Distributed, Internal
Id:           Vxlan:5001
Ip(Mask):      172.16.10.1(255.255.255.0)
Connected Dvs: Compute_VDS
```

.
.
.

show logical-router host *hostID* dlr *dLrID* route

Shows the routes configured on a logical router. This information is retrieved from the specified host.

Synopsis

```
show logical-router host hostID dlr dLrID route
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-router host host-29 dlr edge-1 route
```

VDR default+edge-1 Route Table

Legend: [U: Up], [G: Gateway], [C: Connected], [I: Interface]

Legend: [H: Host], [F: Soft Flush] [!: Reject] [E: ECMP]

Destination	GenMask	Gateway	Flags	Ref	Origin	UpTime	Interface
-----	-----	-----	----	---	-----	-----	-----
0.0.0.0	0.0.0.0	192.168.10.1	UG	1	AUTO	272883	138800000002
172.16.10.0	255.255.255.0	0.0.0.0	UCI	1	MANUAL	273214	13880000000a
172.16.20.0	255.255.255.0	0.0.0.0	UCI	1	MANUAL	273241	13880000000b

172.16.30.0	255.255.255.0	0.0.0.0	UCI	3	MANUAL	273241	1388000000c
192.168.10.0	255.255.255.248	0.0.0.0	UCI	1	MANUAL	273214	13880000002
192.168.100.0	255.255.255.0	192.168.10.1	UG	1	AUTO	7017	13880000002

Related Commands

`show logical-router controller controllerID dlr dlrID route`

show logical-router host *hostID* dlr *dlrID* tunable

Shows tunable parameters for a logical router. This information is retrieved from the specified host.

Synopsis

`show logical-router host hostID dlr dlrID tunable`

CLI Mode

Basic

Example

`nsx-mgr> show logical-router host host-29 dlr edge-1 tunable`

VDR Instance default+edge-1 Tunable Parameters:

```

enableFLE:          YES
dpLogLevel:         0
enableFrag:         NO
enableIcmpPMTU:     NO
enableIcmpEcho:     YES
enableBcastIcmpEcho: NO
enableIcmpRateLimit: NO
defaultTtl:         65
garpSupport:        1
maxArpEntries:     5000
maxFLEntries:       8192
ecmpMethod:         1

```

show logical-router list all

Shows information about all logical routers. This information is retrieved from NSX Manager.

Synopsis

`show logical-router list all`

CLI Mode

Basic

Example

`nsx-mgr> show logical-router list all`

Edge Id	Vdr Name	Vdr Id	#Lifs
edge-1	default+edge-1	0x00001388	4

show logical-router list dlr *dlrID* host

Shows on which hosts the specified logical router is available. This information is retrieved from NSX Manager.

Synopsis

`show logical-router list dlr dlrID host`

CLI Mode

Basic

Example

```

nsx-mgr> show logical-router list dlr edge-1 host
ID                               HostName
host-29                          esxcomp-01a.corp.local
host-38                          esxcomp-01b.corp.local
host-10                          esx-01a.corp.local
host-34                          esxcomp-02a.corp.local
host-15                          esx-02a.corp.local

```

Central Logical Switch Commands

show logical-switch controller *controllerID* host *hostIP* arp

Shows the ARP table for a host. This information is retrieved from the specified controller.

Synopsis

```
show logical-switch controller controllerID host hostIP arp
```

CLI Mode

Basic

Example

```

nsx-mgr> show logical-switch controller controller-3 host 192.168.210.51 arp
VNI    IP           MAC           Connection-ID
5001   172.16.10.11  00:50:56:a6:7a:a2 6

```

show logical-switch controller *controllerID* host *hostIP* joined-vnis

Shows connected logical switches on a host. This information is retrieved from the specified controller.

Synopsis

```
show logical-switch controller controllerID host hostIP connection
```

CLI Mode

Basic

Example

```

nsx-mgr> show logical-switch controller controller-3 host 192.168.210.51 joined-vnis
VNI    Controller    BUM-Replication  ARP-Proxy  Connections
5001   192.168.110.202 Enabled        Enabled    3

```

show logical-switch controller *controllerID* host *hostIP* mac

Shows the MAC address table for a host. This information is retrieved from the specified controller.

Synopsis

```
show logical-switch controller controllerID host hostIP mac
```

CLI Mode

Basic

Example

```

nsx-mgr> show logical-switch controller controller-3 host 192.168.210.51 mac
VNI    MAC           VTEP-IP       Connection-ID

```

```
5001    00:50:56:a6:7a:a2 192.168.250.52 6
```

show logical-switch controller *controllerID* host *hostIP* vtep

Shows the VTEP table for a host. This information is retrieved from the specified controller.

Synopsis

```
show logical-switch controller controllerID host hostIP vtep
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller controller-3 host 192.168.210.51 vtep
VNI    IP                Segment          MAC                Connection-ID
5001   192.168.250.52   192.168.250.0   00:50:56:60:bb:b6 6
```

show logical-switch controller *controllerID* vni *vni* arp

Shows the ARP table for a logical switch. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-switch controller (master | controllerID) vni vni arp
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller master vni 5001 arp
VNI    IP                MAC                Connection-ID
5001   172.16.10.12     00:50:56:a6:a1:e3 7
5001   172.16.10.11     00:50:56:a6:7a:a2 6
masterControllerIp=192.168.110.202
```

show logical-switch controller *controllerID* vni *vni* brief

Shows information about a logical switch. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-switch controller (master | controllerID) vni vni brief
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller master vni 5001 brief
VNI    Controller      BUM-Replication  ARP-Proxy  Connections
5001   192.168.110.202 Enabled          Enabled    3
```

Related Commands

```
show logical-switch host hostID vni vni verbose
```

show logical-switch controller *controllerID* vni *vni* connection

Shows the hosts connected to a logical switch. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-switch controller (master | controllerID) vni vni connection
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller master vni 5001 connection
Host-IP      Port ID
192.168.210.51 13335 6
192.168.210.56 35059 7
192.168.210.52 50484 8
masterControllerIp=192.168.110.202
```

show logical-switch controller *controllerID* vni *vni* mac

Shows the MAC address table for a logical switch. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-switch controller (master | controllerID) vni vni mac
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller master vni 5001 mac
VNI    MAC                VTEP-IP          Connection-ID
5001   00:50:56:a6:a1:e3 192.168.250.53   7
5001   00:50:56:a6:7a:a2 192.168.250.52   6
masterControllerIp=192.168.110.202
```

show logical-switch controller *controllerID* vni *vni* statistics

Shows statistics for a logical switch. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-switch controller (master | controllerID) vni vni statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller master vni 5001 statistics
update.member      3
update.vtep        5
update.mac         2
update.mac.invalidate 0
update.arp         9
update.arp.duplicate 0
query.mac          1
query.mac.miss     0
query.arp          5
query.arp.miss     5

masterControllerIp=192.168.110.202
```

show logical-switch controller *controllerID* vni *vni* vtep

Shows the VTEP table for a logical switch. This information is retrieved from the specified controller. *controllerID* can be specified as *master* to retrieve information from the master controller.

Synopsis

```
show logical-switch controller (master | controllerID) vni vni vtep
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch controller master vni 5001 vtep
VNI      IP              Segment          MAC              Connection-ID
5001     192.168.250.53  192.168.250.0   00:50:56:6c:f5:b8 7
5001     192.168.250.52  192.168.250.0   00:50:56:60:bb:b6 6
5001     192.168.250.51  192.168.250.0   00:50:56:6e:e4:27 8
masterControllerIp=192.168.110.202
```

Related Commands

```
show logical-switch host hostID vni vni vtep
```

show logical-switch host *hostID* config-by-vsm

Shows controller configuration information. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID config-by-vsm
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch host host-29 config-by-vsm
<config>
  <connectionList>
    <connection id="0000">
      <port>1234</port>
      <server>192.168.110.201</server>
      <sslEnabled>true</sslEnabled>
      <thumbprint>0A:FE:B0:0E:92:A5:D1:FB:2F:39:C6:57:91:50:93:9C:8C:78:0B:50</thumbprint>
    </connection>
    <connection id="0001">
      <port>1234</port>
      <server>192.168.110.203</server>
      <sslEnabled>true</sslEnabled>
      <thumbprint>A8:B9:E7:A3:FD:9C:65:A2:17:4A:E9:C5:9D:63:94:4E:CB:06:79:9E</thumbprint>
    </connection>
    <connection id="0002">
      <port>1234</port>
      <server>192.168.110.202</server>
      <sslEnabled>true</sslEnabled>
      <thumbprint>61:7D:8A:4F:2D:E7:F9:03:45:D8:6A:A7:E7:A2:3E:23:ED:69:12:44</thumbprint>
    </connection>
  </connectionList>
  <localeId>
    <id>42294BEB-799B-4560-3F29-9A5EB70C884A</id>
  </localeId>
  <vdrDvsList>
    <vdrDvs id="0000">
      <numActiveUplink>1</numActiveUplink>
```

```

    <numUplink>1</numUplink>
    <teamingPolicy>FAILOVER_ORDER</teamingPolicy>
    <uplinkPortNames>Uplink 1</uplinkPortNames>
    <uuid>88 eb 0e 50 96 af 1d f1-36 fe c1 ef a1 51 51 49</uuid>
    <vxlanOnly>true</vxlanOnly>
  </vdrDvs>
</vdrDvsList>
<vdrInstanceList>
  <vdrInstance id="0000">
    <authToken>28708598-654d-4723-a096-70a474444367</authToken>
    <isUniversal>false</isUniversal>
    <localEgressRequired>false</localEgressRequired>
    <vdrId>5000</vdrId>
    <vdrName>default+edge-1</vdrName>
  </vdrInstance>
</vdrInstanceList>
</config>

```

show logical-switch host *hostID* statistics

Shows statistics for a logical switch. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID statistics
```

CLI Mode

Basic

Example

```

nsx-mgr> show logical-switch host host-29 statistics
tx.passThrough: 0
tx.vxlanTotal: 0
tx.clone: 0
tx.tso: 0
tx.csum: 0
tx.drop.invalidFrame: 0
tx.drop.guestTag: 0
tx.drop.noResource: 0
tx.drop.invalidState: 3
rx.passThrough: 0
rx.vxlanTotal: 0
rx.clone: 0
rx.drop.invalidFrame: 0
rx.drop.notExist: 0
rx.drop.noResource: 0
forward.pass: 0
forward.reject: 0
forward.rpf: 0
arpProxy.reply.total: 0
arpProxy.reply.fail: 0
arpProxy.request.total: 3
arpProxy.request.fail: 0
mcastProxy.tx.total: 0
mcastProxy.tx.fail: 0
mcastProxy.rx.total: 0
mcastProxy.rx.fail: 0

```

show logical-switch host *hostID* verbose

Shows logical switch information. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID verbose
```

CLI Mode

Basic

Example

```

nsx-mgr> show logical-switch host host-29 verbose
VXLAN Global States:
  Control plane Out-Of-Sync: No
  UDP port: 8472
VXLAN VDS: Compute_VDS
  VDS ID: 88 eb 0e 50 96 af 1d f1-36 fe c1 ef a1 51 51 49
  MTU: 1600
  Segment ID: 192.168.250.0
  Gateway IP: 192.168.250.2
  Gateway MAC: 00:50:56:09:46:07
  Vmknic count: 1
    VXLAN vmknic: vmk3
      VDS port ID: 44
      Switch port ID: 50331656
      Endpoint ID: 0
      VLAN ID: 0
      IP: 192.168.250.52
      Netmask: 255.255.255.0
      Segment ID: 192.168.250.0
      IP acquire timeout: 0
      Multicast group count: 0
Network count: 4
  VXLAN network: 5001
    Multicast IP: N/A (headend replication)
    Control plane: Enabled (multicast proxy,ARP proxy)
    Controller: 192.168.110.202 (up)
    MAC entry count: 2
    ARP entry count: 0
    Port count: 2
  VXLAN network: 5002
    Multicast IP: N/A (headend replication)
    Control plane: Enabled (multicast proxy,ARP proxy)
    Controller: 192.168.110.201 (up)
    MAC entry count: 0
    ARP entry count: 0
    Port count: 1
  VXLAN network: 5003
    Multicast IP: N/A (headend replication)
    Control plane: Enabled (multicast proxy,ARP proxy)
    Controller: 192.168.110.203 (up)
    MAC entry count: 1
    ARP entry count: 0
    Port count: 1
  VXLAN network: 5000
    Multicast IP: 0.0.0.0
    Control plane: Disabled
    MAC entry count: 0
    ARP entry count: 0
    Port count: 1

```

show logical-switch host *hostID* vni *vni* arp

Shows the ARP entry count for a logical switch. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID vni vni arp
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch host host-29 vni 5001 arp
ARP entry count: 0
```

show logical-switch host *hostID* vni *vni* mac

Shows the MAC entry count for a logical switch. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID vni vni mac
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch host host-29 vni 5001 mac
MAC entry count: 2
  Inner MAC: 00:50:56:e1:3f:db
  Outer MAC: 00:50:56:6e:e4:27
  Outer IP:  192.168.250.51
  Flags:    1

  Inner MAC: 02:50:56:56:44:52
  Outer MAC: 00:50:56:6e:e4:27
  Outer IP:  192.168.250.51
  Flags:    D
```

show logical-switch host *hostID* vni *vni* port *portID* statistics

Shows the packet statistics for a given VXLAN port on the specified host. You can find VXLAN port numbers with the `show logical-switch host hostID vni vni verbose` command (see VXLAN port field).

Synopsis

```
show logical-switch host hostID vni vni port portID statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch host host-29 vni 5001 port 68 statistics
tx.total: 0
rx.total: 0
```

Related Commands

```
show logical-switch host hostID vni vni verbose
```

show logical-switch host *hostID* vni *vni* statistics

Shows statistics for a logical switch. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID vni vni statistics
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch host host-29 vni 5001 statistics
```

```

tx.total: 0
tx.nonUnicast: 0
tx.crossRouter: 0
tx.drop.total: 1
rx.total: 0
rx.mcastEncap: 0
rx.crossRouter: 0
rx.drop.wrongDest: 0
rx.drop.invalidEncap: 0
rx.drop.total: 0
mac.lookup.found: 0
mac.lookup.flood: 0
mac.lookup.full: 0
mac.update.learn: 0
mac.update.extend: 0
mac.update.full: 0
mac.age: 4
mac.renew: 0
arp.lookup.found: 0
arp.lookup.unknown: 5
arp.lookup.full: 0
arp.lookup.wait: 3
arp.lookup.timeout: 0
arp.update.update: 0
arp.update.unknown: 4
arp.update.notFound: 4
arp.age: 4
arp.renew: 1

```

show logical-switch host *hostID* vni *vni* verbose

Shows information about a logical switch. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID vni vni verbose
```

CLI Mode

Basic

Example

```

nsx-mgr> show logical-switch host host-29 vni 5001 verbose
VXLAN Global States:
  Control plane Out-Of-Sync: No
  UDP port: 8472
VXLAN network: 5001
  Multicast IP: N/A (headend replication)
  Control plane: Enabled (multicast proxy,ARP proxy)
  Controller: 192.168.110.202 (up)
  MAC entry count: 2
  ARP entry count: 0
  Port count: 2
  VXLAN port: 68
    Switch port ID: 50331657
    vmknix ID: 0
  VXLAN port: vdrPort
    Switch port ID: 50331655
    vmknix ID: 0

```

Related Commands

[show logical-switch controller controllerID vni vni brief](#)

show logical-switch host *hostID* vni *vni* vtep

Shows the VTEP count for a logical switch. This information is retrieved from the specified host.

Synopsis

```
show logical-switch host hostID vni vni vtep
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch host host-29 vni 5001 vtep
VTEP count: 2
  Segment ID: 192.168.250.0
  VTEP IP:    192.168.250.53
  Flags:     0(None)

  Segment ID: 192.168.250.0
  VTEP IP:    192.168.250.51
  Flags:     0(None)
```

Related Commands

```
show logical-switch controller controllerID vni vni vtep
```

show logical-switch list all

Shows all logical switches. This information is retrieved from NSX Manager.

Synopsis

```
show logical-switch list all
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch list all
```

NAME	UUID	VNI	Trans Zone Name	Trans Zone ID
Transit-Network-01	1f1b49b6-0c1a-4a77-b916-9f3df3e0ff30	5000	Transport-Zone	vdnscope-1
Web-Tier-01	96c0cfaf-4ae5-43ee-950e-c64cf6d521c3	5001	Transport-Zone	vdnscope-1
App-Tier-01	d09b79f0-94b5-414e-acb9-5b6ff98e63bb	5002	Transport-Zone	vdnscope-1
DB-Tier-01	f202a4d3-a036-459d-a2b9-98d8a1cb4e9c	5003	Transport-Zone	vdnscope-1

show logical-switch list host *hostID* vni

Shows all logical switches that are available on a host. This information is retrieved from NSX Manager.

Synopsis

```
show logical-switch list host hostID vni
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch list host host-29 vni
```

NAME	UUID	VNI	Trans Zone Name	Trans Zone ID
Transit-Network-01	1f1b49b6-0c1a-4a77-b916-9f3df3e0ff30	5000	Transport-Zone	vdnscope-1
Web-Tier-01	96c0cfaf-4ae5-43ee-950e-c64cf6d521c3	5001	Transport-Zone	vdnscope-1
App-Tier-01	d09b79f0-94b5-414e-acb9-5b6ff98e63bb	5002	Transport-Zone	vdnscope-1
DB-Tier-01	f202a4d3-a036-459d-a2b9-98d8a1cb4e9c	5003	Transport-Zone	vdnscope-1

show logical-switch list vni *vni* host

Shows all hosts on which a logical switch is available. This information is retrieved from NSX Manager.

Synopsis

```
show logical-switch list vni vni host
```

CLI Mode

Basic

Example

```
nsx-mgr> show logical-switch list vni 5001 host
ID                HostName                VdsName
host-29           esxcomp-01a.corp.local  Compute_VDS
host-34           esxcomp-02a.corp.local  Compute_VDS
host-38           esxcomp-01b.corp.local  Compute_VDS
host-15           esx-02a.corp.local      Mgmt_Edge_VDS
host-10           esx-01a.corp.local      Mgmt_Edge_VDS
```

Central Distributed Firewall Commands

show dfw cluster

Shows clusters protected by distributed firewall.

Synopsis

```
show dfw cluster (all | clusterID)
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw cluster all
No.  Cluster Name                Cluster Id                Datacenter Name  Firewall Status
1    Compute Cluster B          domain-c27              ABC Medical      Enabled
2    Compute Cluster A          domain-c25              ABC Medical      Enabled
3    Management and Edge Cluster domain-c7                ABC Medical      Enabled
```

or

```
nsx-mgr> show dfw cluster domain-c25
Datacenter: ABC Medical
Cluster: Compute Cluster A
No.  Host Name                Host Id                Installation Status
1    esxcomp-01a.corp.local  host-29                Ready
2    esxcomp-02a.corp.local  host-34                Ready
```

show dfw host *hostID*

Shows the VMs protected by distributed firewall on the specified host.

Synopsis

```
show dfw host hostID
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-29
```

```

Datacenter: ABC Medical
Cluster: Compute Cluster A
Host: esxcomp-01a.corp.local
No.  VM Name      VM Id    Power Status
1    web-sv-01a    vm-36   on
2    br-sv-02a     vm-32   off

```

show dfw host *hostID* filter *filterID* addrsets

Shows address sets (containers) used by the rules on the specified filter.

Synopsis

```
show dfw host hostID filter filterID addrsets
```

CLI Mode

Basic

Example

```

nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 addrsets
addrset ip-virtualwire-2 {
ip 172.16.10.11,
ip 172.16.10.12,
}

```

show dfw host *hostID* filter *filterID* discoveredips

Shows the discovered VM IPs for the virtual NIC filter as well as detection type. A maximum of 32 IPv4 and 32 IPv6 addresses could be displayed at any time on a filter for detection based on DHCP snooping and 1 IPv4 and 1 IPv6 address could be displayed on a filter for detection based on ARP snooping.

Synopsis

```
show dfw host hostID filter filterID discoveredips
```

CLI Mode

Basic

Example

```

nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 discoveredips
Entries found for nic-54466-eth0-vmware-sfw.2: 1
[1] vlan = 0 mac = 00:50:56:a6:7a:a2 IP = 172.16.10.11 (ARP snooping)

```

show dfw host *hostID* filter *filterID* discoveredips stats

Shows statistics for the discovered VM IPs for the virtual NIC filter including detection types enabled, and counts for additions and deletions.

Synopsis

```
show dfw host hostID filter filterID discoveredips stats
```

CLI Mode

Basic

Example

```

nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 discoveredips stats
Features Enabled : 0000000F : (DHCP snooping) (ARP snooping) (DHCPv6 snooping) (ND snooping)
Number of Adds so far : 1
Number of Deletes so far : 0
Last updated time : 294888

```

```
Entries found for nic-54466-eth0-vmware-sfw.2: 1
[1] vlan = 0 mac = 00:50:56:a6:7a:a2 IP = 172.16.10.11 (ARP snooping)
```

show dfw host *hostID* filter *filterID* flows

Shows distributed firewall flows for the specified filter.

Synopsis

```
show dfw host hostID filter filterID flows
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-38 filter nic-54628-eth0-vmware-sfw.2 flows
Count retrieved from kernel active(L3,L4)=2, active(L2)+inactive(L3,L4)=0, drop(L2,L3,L4)=0
55ce2a2300000003 Active tcp 0800 OUT 1001 0 0 172.16.10.12:Unknown(36768) -> 172.16.20.11:ssh(22)
2609 EST 515817 1576865 9803 9731
55ce2a2300000004 Active icmp 0800 IN 1001 0 0 172.16.30.11 -> 172.16.10.12 8 0 807744 807744 9616
9616
```

show dfw host *hostID* filter *filterID* rule *ruleID*

Shows information for a specific firewall rule on the specified filter.

Synopsis

```
show dfw host hostID filter filterID rule ruleID
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 rule 1005
1005 at 3 inout protocol any from addrset ip-virtualwire-2 to addrset ip-virtualwire-2 drop;
```

show dfw host *hostID* filter *filterID* rules

Shows firewall rules configured on the specified filter.

Synopsis

```
show dfw host hostID filter filterID rules
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 rules
ruleset domain-c25 {
  # Filter rules
  rule 1003 at 1 inout protocol ipv6-icmp icmptype 136 from any to any accept;
  rule 1003 at 2 inout protocol ipv6-icmp icmptype 135 from any to any accept;
  rule 1005 at 3 inout protocol any from addrset ip-virtualwire-2 to addrset ip-virtualwire-2
  drop;
  rule 1002 at 4 inout protocol udp from any to any port 68 accept;
  rule 1002 at 5 inout protocol udp from any to any port 67 accept;
  rule 1001 at 6 inout protocol any from any to any accept;
}
ruleset domain-c25_L2 {
```

```
# Filter rules
rule 1004 at 1 inout ethertype any from any to any accept;
}
```

show dfw host *hostID* filter *filterID* spoofguard

Shows Spoofguard information for the specified filter.

Synopsis

```
show dfw host hostID filter filterID spoofguard
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 spoofguard
Spoofguard Enabled.
IPv4 Address : 172.16.10.11
MAC Address  : 00:50:56:a6:7a:a2
```

show dfw host *hostID* filter *filterID* stats

Shows packet statistics for the specified filter.

Synopsis

```
show dfw host hostID filter filterID stats
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-29 filter nic-54466-eth0-vmware-sfw.2 stats
rule 1003: 31 evals, in 0 out 0 pkts, in 0 out 0 bytes
rule 1003: 0 evals, in 0 out 0 pkts, in 0 out 0 bytes
rule 1005: 31 evals, in 0 out 29 pkts, in 0 out 2268 bytes
rule 1002: 2 evals, in 0 out 0 pkts, in 0 out 0 bytes
rule 1002: 0 evals, in 0 out 0 pkts, in 0 out 0 bytes
rule 1001: 2 evals, in 6273 out 6273 pkts, in 526932 out 526932 bytes
rule 1004: 10 evals, in 6294 out 6321 pkts, in 527898 out 530074 bytes
```

show dfw host *hostID* summarize-dvfilter

Shows a summary of DVFilter information.

Synopsis

```
show dfw host hostID summarize-dvfilter
```

CLI Mode

Basic

Example

```
nsx-mgr> show dfw host host-29 summarize-dvfilter
Fastpaths:
agent: dvfilter-faulter, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module: dvfilter
agent: ESXi-Firewall, refCount: 5, rev: 0x1010000, apiRev: 0x1010000, module: esxfw
agent: dvfilter-generic-vmware, refCount: 2, rev: 0x1010000, apiRev: 0x1010000, module:
      dvfilter-generic-fastpath
agent: dvfg-igmp, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module: dvfg-igmp
```

```

agent: dvfilter-generic-vmware-swsec, refCount: 2, rev: 0x1010000, apiRev: 0x1010000, module:
    dvfilter-switch-security
agent: bridgelearningfilter, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module: vdrb
agent: vmware-sfw, refCount: 2, rev: 0x1010000, apiRev: 0x1010000, module: vsip

```

Slowpaths:

Filters:

```

world 0 <no world>
port 50331650 vmnic0
  dvPort slot 0
    name: 41-sw88 eb 0e 50 96 af 1d f1-36 fe c1 ef a1 51 51 49.dvfilter-generic-vmware.0
    agentName: dvfilter-generic-vmware
    state: IOChain Attached
    vmState: Detached
    failurePolicy: failClosed
    slowPathID: none
    filter source: Invalid
port 50331652 vmk0
  vNic slot 0
    name: nic-0-eth4294967295-ESXi-Firewall.0
    agentName: ESXi-Firewall
    state: IOChain Attached
    vmState: Detached
    failurePolicy: failOpen
    slowPathID: none
    filter source: Invalid
port 50331653 vmk1
  vNic slot 0
    name: nic-0-eth4294967295-ESXi-Firewall.0
    agentName: ESXi-Firewall
    state: IOChain Attached
    vmState: Detached
    failurePolicy: failOpen
    slowPathID: none
    filter source: Invalid
port 50331654 vmk2
  vNic slot 0
    name: nic-0-eth4294967295-ESXi-Firewall.0
    agentName: ESXi-Firewall
    state: IOChain Attached
    vmState: Detached
    failurePolicy: failOpen
    slowPathID: none
    filter source: Invalid
port 50331656 vmk3
  vNic slot 0
    name: nic-0-eth4294967295-ESXi-Firewall.0
    agentName: ESXi-Firewall
    state: IOChain Attached
    vmState: Detached
    failurePolicy: failOpen
    slowPathID: none
    filter source: Invalid
world 54466 vmm0:web-sv-01a vcUuid:'50 26 c7 cd b6 f3 f4 bc-e5 33 3d 4b 25 5c 62 77'
port 50331657 web-sv-01a.eth0
  vNic slot 2
    name: nic-54466-eth0-vmware-sfw.2
    agentName: vmware-sfw
    state: IOChain Attached
    vmState: Detached
    failurePolicy: failClosed
    slowPathID: none
    filter source: Dynamic Filter Creation
  vNic slot 1
    name: nic-54466-eth0-dvfilter-generic-vmware-swsec.1
    agentName: dvfilter-generic-vmware-swsec
    state: IOChain Attached

```

```

vmState: Detached
failurePolicy: failClosed
slowPathID: none
filter source: Alternate Opaque Channel

```

show dfw vm *vmID*

Shows the vNICs protected by distributed firewall on the specified virtual machine.

Synopsis

```
show dfw vm vmID
```

CLI Mode

Basic

Example

```

nsx-mgr> show dfw vm vm-36
Datacenter: ABC Medical
Cluster: Compute Cluster A
Host: esxcomp-01a.corp.local
VM: web-sv-01a
Virtual Nics List:
1.
Vnic Name      web-sv-01a - Network adapter 1
Vnic Id        5026c7cd-b6f3-f4bc-e533-3d4b255c6277.000
Filters        nic-54466-eth0-vmware-sfw.2

```

show dfw vnic *vnicID*

Shows all filters configured on the specified vNIC.

Synopsis

```
show dfw vnic vnicID
```

CLI Mode

Basic

Example

```

nsx-mgr> show dfw vnic 5026c7cd-b6f3-f4bc-e533-3d4b255c6277.000
Vnic Name      web-sv-01a - Network adapter 1
Vnic Id        5026c7cd-b6f3-f4bc-e533-3d4b255c6277.000
Mac Address    00:50:56:a6:7a:a2
Port Group Id  dvportgroup-198
Filters        nic-54466-eth0-vmware-sfw.2

```

Central NSX Edge Commands

The central edge commands allow you to run a subset of the available edge commands from the NSX Manager command line. The central edge commands have the format `show edge edgeID [keywords and arguments]`, which is the equivalent of running `show [keywords and arguments]` on the NSX Edge appliance, *edgeID*.

`show edge (all | edgeID)` does not have an equivalent command on the NSX Edge appliance.

Table 3-2. Examples of Central Edge Commands and equivalent NSX Edge Appliance Commands

In Central CLI on NSX Manager	In Edge CLI on NSX Edge Appliance
<code>show edge <i>edgeID</i> arp</code>	<code>show arp</code>

Table 3-2. Examples of Central Edge Commands and equivalent NSX Edge Appliance Commands

In Central CLI on NSX Manager	In Edge CLI on NSX Edge Appliance
<code>show edge <i>edgeID</i> configuration interface [<i>intName</i>]</code>	<code>show configuration interface [<i>intName</i>]</code>
<code>show edge <i>edgeID</i> ip ospf</code>	<code>show ip ospf</code>

The show edge commands can be used to get information from edges in a high availability configuration. `show edge edge-1` will retrieve information from the edge appliance that is currently active. To retrieve information from a specific appliance in an high availability configuration, specify the edge by the high availability index, for example, `show edge-1.0` or `show edge-1.1`.

show edge (all | *edgeID*)

Shows information for all edges. To get information for a specific edge, specify the edge ID.

Synopsis

```
show edge (all | edgeID )
```

CLI Mode

Basic

Example

```
nsx-mgr> show edge all
NOTE: CLI commands for Edge ServiceGateway(ESG) start with 'show edge'
      CLI commands for Distributed Logical Router(DLR) Control VM start with 'show edge'
      CLI commands for Distributed Logical Router(DLR) start with 'show logical-router'
Legend:
Edge Size: Compact - C, Large - L, X-Large - X, Quad-Large - Q
Edge ID      Name      Size Version Status
edge-1      logical-router      C   6.2.0  GREEN
edge-2      perimeter-gateway   L   6.2.0  GREEN

or

nsx-mgr> show edge edge-2
Id           :edge-2
Type        :gatewayServices
1)
Name        :perimeter-gateway-0
Size       :large
Host       :esx-01a.corp.local
Deploy Status :true
2)
Name        :perimeter-gateway-1
Size       :large
Host       :esx-02a.corp.local
Deploy Status :true
-----Services Configuration Status-----
L2VPN      :false
Firewall   :false
DNS        :false
SSLVPN     :false
Routing    :true
HA         :true
Syslog     :false
Load Balancer :false
GSLB      :false
IPSEC     :false
DHCP      :false
NAT       :true
Bridges   :false
```

show edge *edgeID* arp

Shows the ARP table. See [show arp](#) for an example.

Synopsis

```
show edge edgeID[.0|.1] arp
```

CLI Mode

Basic

Related Commands

[show arp](#)

show edge *edgeID* configuration application-set

Shows the application sets (Service Groups) used in the Edge firewall configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration application-set
```

CLI Mode

Basic

Related Commands

[show configuration application-set](#)

show edge *edgeID* configuration bgp

Shows the BGP configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration bgp
```

CLI Mode

Basic

Related Commands

[show configuration bgp](#)

show edge *edgeID* configuration certificatestore

Shows the certificate store configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration certificatestore
```

CLI Mode

Basic

Related Commands

[show configuration certificatestore](#)

show edge *edgeID* configuration dhcp

Shows NSX Edge IP address pooling and one-to-one static IP address allocation.

Synopsis

```
show edge edgeID [.0|.1] configuration dhcp
```

CLI Mode

Basic

Related Commands

[show configuration dhcp](#)

show edge *edgeID* configuration dns

Shows the DNS configuration.

Synopsis

```
show edge edgeID [.0|.1] configuration dns
```

CLI Mode

Basic

Related Commands

[show configuration dns](#)

show edge *edgeID* configuration firewall

Shows the firewall configuration.

Synopsis

```
show edge edgeID [.0|.1] configuration firewall
```

CLI Mode

Basic

Related Commands

[show configuration firewall](#)

show edge *edgeID* configuration global

Shows the configuration for all NSX Edge services.

Synopsis

```
show edge edgeID [.0|.1] configuration global
```

CLI Mode

Basic

Related Commands

[show configuration global](#)

show edge *edgeID* configuration gslb

Show the GSLB (Global Server Load Balancer) configuration.

Note: the [show configuration gslb](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] configuration gslb
```

Related Commands[show configuration gslb](#)**show edge *edgeID* configuration highavailability**

Shows the high availability configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration highavailability
```

CLI Mode

Basic

Related Commands[show configuration highavailability](#)**show edge *edgeID* configuration interface**

Shows the interface configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration interface [intName]
```

CLI Mode

Basic

Related Commands[show configuration interface](#)**show edge *edgeID* configuration interface-set**

Shows the interface set configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration interface-set
```

CLI Mode

Basic

Related Commands[show configuration interface-set](#)**show edge *edgeID* configuration ipsec**

Shows certificate configuration for IPsec VPN.

Synopsis

```
show edge edgeID[.0|.1] configuration ipsec
```

CLI Mode

Basic

Related Commands[show configuration ipsec](#)

show edge *edgeID* configuration ipset

Shows IP address groups (IP Sets) configured on the NSX Edge.

Synopsis

```
show edge edgeID[.0|.1] configuration ipset
```

CLI Mode

Basic

Related Commands

[show configuration ipset](#)

show edge *edgeID* configuration isis

Shows the ISIS routing configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration isis
```

CLI Mode

Basic

Related Commands

[show configuration isis](#)

show edge *edgeID* configuration l2vpn

Shows L2 VPN configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration l2vpn
```

CLI Mode

Basic

Related Commands

[show configuration l2vpn](#)

show edge *edgeID* configuration loadbalancer

Shows external, or public, IP address mapped to internal servers for load balancing.

Note: the [show configuration loadbalancer](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] configuration loadbalancer
```

CLI Mode

Basic

Related Commands

[show configuration loadbalancer](#)

show edge *edgeID* configuration nat

Shows the NAT configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration nat
```

CLI Mode

Basic

Related Commands

```
show configuration nat
```

show edge *edgeID* configuration ospf

Shows the OSPF configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration ospf
```

CLI Mode

Basic

Related Commands

```
show configuration ospf
```

show edge *edgeID* configuration provider-appset

Shows the provider's application sets (service groups).

Synopsis

```
show edge edgeID[.0|.1] configuration provider-appset
```

CLI Mode

Basic

Related Commands

```
show configuration provider-appset
```

show edge *edgeID* configuration provider-ipset

Shows the provider's IP sets (IP address groups).

Synopsis

```
show edge edgeID[.0|.1] configuration provider-ipset
```

CLI Mode

Basic

Related Commands

```
show configuration provider-ipset
```

show edge *edgeID* configuration routing-global

Shows the global routing configuration.

Synopsis

```
show edge edgeID[.0|.1] configuration routing-global
```

CLI Mode

Basic

Related Commands

[show configuration routing-global](#)

show edge *edgeID* configuration snmp

Shows the SNMP configuration.

Synopsis

show edge *edgeID*[.0|.1] configuration snmp

CLI Mode

Basic

Related Commands

[show configuration snmp](#)

show edge *edgeID* configuration sslvpn-plus

Shows the SSL VPN configuration.

Synopsis

show edge *edgeID*[.0|.1] configuration sslvpn-plus

CLI Mode

Basic

Related Commands

[show configuration sslvpn-plus](#)

show edge *edgeID* configuration static-routing

Shows the static routes defined for the NSX Edge data packets.

Synopsis

show edge *edgeID*[.0|.1] configuration static-routing

CLI Mode

Basic

Related Commands

[show configuration static-routing](#)

show edge *edgeID* configuration syslog

Shows remote syslog servers defined for the NSX Edge.

Synopsis

show edge *edgeID*[.0|.1] configuration syslog

CLI Mode

Basic

Related Commands[show configuration syslog](#)**show edge *edgeID* eventmgr**

Shows event manager statistics.

Synopsis

```
show edge edgeID[.0|.1] eventmgr
```

CLI Mode

Basic

Related Commands[show eventmgr](#)**show edge *edgeID* firewall**

Shows firewall packet counters along with firewall rules that specify what to do with a packet that matches.

Note: the [show firewall](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] firewall
```

CLI Mode

Basic

Example

```
Prompt>
```

Related Commands[show firewall](#)**show edge *edgeID* firewall flows topN *n***

Shows firewall packet counters along with top *n* number of packet flows.

Note: the [show firewall](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] firewall flows topN n
```

CLI Mode

Basic

Related Commands[show firewall flows](#)**show edge *edgeID* flowtable**

Shows flow table information.

Note: the show flowtable command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] flowtable [rule-id ruleID]
```

CLI Mode

Basic

Related Commands`show flowtable`**show edge *edgeID* interface**

Shows interface information for all interfaces, or a specific interface.

Synopsis`show edge edgeID[.0|.1] interface [intName]`**CLI Mode**

Basic

Related Commands`show interface`**show edge *edgeID* ip bgp**

Shows entries in the Border Gateway Protocol (BGP) routing table.

Synopsis`show edge edgeID[.0|.1] ip bgp`**CLI Mode**

Basic

Related Commands`show ip bgp`**show edge *edgeID* ip bgp neighbors**

Shows BGP neighbors.

Synopsis`show edge edgeID[.0|.1] ip bgp neighbors`**CLI Mode**

Basic

Related Commands`show ip bgp neighbors`**show edge *edgeID* ip forwarding**

Shows forwarding table entries.

Synopsis`show edge edgeID[.0|.1] ip forwarding`**CLI Mode**

Basic

Related Commands[show ip forwarding](#)**show edge *edgeID* ip ospf**

Shows information about Open Shortest Path First (OSPF) routing process.

Synopsis

```
show edge edgeID[.0|.1] ip ospf
```

CLI Mode

Basic

Related Commands[show ip ospf](#)**show edge *edgeID* ip ospf database**

Shows IPv4 OSPF database.

Note: the [show ip ospf database](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] ip ospf database
```

CLI Mode

Basic

Related Commands[show ip ospf database](#)**show edge *edgeID* ip ospf interface**

Shows IPv4 OSPF interface.

Synopsis

```
show edge edgeID[.0|.1] ip ospf interface
```

CLI Mode

Basic

Related Commands[show ip ospf interface](#)**show edge *edgeID* ip ospf neighbor**

Shows IP addresses of OSPF neighbors.

Synopsis

```
show edge edgeid[.0|.1] ip ospf neighbor
```

CLI Mode

Basic

Related Commands[show ip ospf neighbor](#)

show edge *edgeID* ip route

Shows all routes in the routing information base (RiB).

Note: the [show ip route](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] ip route
```

CLI Mode

Basic

Related Commands

[show ip route](#)

show edge *edgeID* ipset

Synopsis

```
show edge edgeID[.0|.1] ipset
```

CLI Mode

Basic

Related Commands

[show ipset](#)

show edge *edgeID* log

Shows the system log.

Note: the [show log](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID[.0|.1] log
```

CLI Mode

Basic

Related Commands

[show log](#)

show edge *edgeID* messagebus

Shows message bus statistics.

Synopsis

```
show edge edgeID[.0|.1] messagebus (forwarder | messages)
```

CLI Mode

Basic

Related Commands

[show messagebus](#)

show edge *edgeID* nat

Displays NAT packet counters along with the NAT rules that specify how to translate network addresses for a packet that matches.

Synopsis

```
show edge edgeID[.0|.1] nat
```

CLI Mode

Basic

Related Commands

[show nat](#)

show edge *edgeID* process list

Shows currently running processes.

Synopsis

```
show edge edgeID[.0|.1] process list
```

CLI Mode

Basic

Related Commands

[show process](#)

show edge *edgeID* process snapshot

Shows a snapshot of the process monitor on the specified NSX Edge.

Synopsis

```
show edge edgeID[.0|.1] process snapshot
```

CLI Mode

Basic

Example

```
nsx-mgr> show edge edge-2 process snapshot
haIndex: 0
top - 23:41:21 up 3 days, 5:36, 0 users, load average: 0.00, 0.01, 0.05
Tasks: 88 total, 1 running, 87 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.9%us, 0.4%sy, 0.0%ni, 98.7%id, 0.1%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 1020400k total, 227488k used, 792912k free, 21080k buffers
Swap: 523260k total, 0k used, 523260k free, 58656k cached
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
23546	root	-2	0	50344	7388	5608	S	2	0.7	0:47.22	heartbeat
1	root	20	0	3956	696	592	S	0	0.1	0:06.32	init
2	root	20	0	0	0	0	S	0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0	0.0	0:01.82	ksoftirqd/0
4	root	20	0	0	0	0	S	0	0.0	0:00.00	kworker/0:0
5	root	20	0	0	0	0	S	0	0.0	0:12.65	kworker/u:0
6	root	RT	0	0	0	0	S	0	0.0	0:02.12	migration/0
7	root	RT	0	0	0	0	S	0	0.0	0:01.93	migration/1
8	root	20	0	0	0	0	S	0	0.0	0:06.58	kworker/1:0
9	root	20	0	0	0	0	S	0	0.0	0:01.13	ksoftirqd/1
10	root	20	0	0	0	0	S	0	0.0	0:25.12	kworker/0:1
.

```

.
or
nsx-mgr> show edge edge-2.1 process snapshot
top - 23:43:36 up 23:15,  0 users,  load average: 0.04, 0.07, 0.05
Tasks:  87 total,   1 running, 86 sleeping,   0 stopped,   0 zombie
Cpu(s):  0.9%us,  0.5%sy,  0.0%ni, 98.5%id,  0.1%wa,  0.0%hi,  0.0%si,  0.0%st
Mem:   1020400k total,   207440k used,   812960k free,   19204k buffers
Swap:   523260k total,     0k used,   523260k free,   56408k cached

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1022	root	20	0	59640	3088	2420	S	2	0.3	2:38.12	vmtoolsd
1742	root	20	0	36580	488	196	S	2	0.0	0:06.26	ha_logd
21762	root	20	0	10748	1132	852	R	2	0.1	0:00.01	top
1	root	20	0	3956	700	596	S	0	0.1	0:03.22	init
2	root	20	0	0	0	0	S	0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0	0.0	0:00.56	ksoftirqd/0
4	root	20	0	0	0	0	S	0	0.0	0:04.75	kworker/0:0
5	root	20	0	0	0	0	S	0	0.0	0:04.05	kworker/u:0
6	root	RT	0	0	0	0	S	0	0.0	0:00.65	migration/0
7	root	RT	0	0	0	0	S	0	0.0	0:00.50	migration/1
8	root	20	0	0	0	0	S	0	0.0	0:06.39	kworker/1:0
9	root	20	0	0	0	0	S	0	0.0	0:00.72	ksoftirqd/1
10	root	20	0	0	0	0	S	0	0.0	0:00.00	kworker/0:1

Related Commands

[show process](#)

show edge *edgeID* service dhcp

Shows whether the DHCP service is running.

Synopsis

```
show edge edgeID [.0|.1] service dhcp [leaseinfo]
```

CLI Mode

Basic

Related Commands

[show service dhcp](#)

show edge *edgeID* service dns

Shows whether the DNS service is running.

Note: the [show service dns](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] service dns
```

CLI Mode

Basic

Related Commands

[show service dns](#)

show edge *edgeID* service highavailability

Note: the [show service highavailability](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] service highavailability [internal]
```

CLI Mode

Basic

Related Commands

[show service highavailability](#)

show edge *edgeID* service ipsec

Shows the VPN service status.

Note: the [show service ipsec](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] service ipsec
```

CLI Mode

Basic

Related Commands

[show service ipsec](#)

show edge *edgeID* service ipsec site

Synopsis

```
show edge edgeID [.0|.1] service ipsec site
```

CLI Mode

Basic

Related Commands

[show service ipsec site](#)

show edge *edgeID* service loadbalancer

Shows overall current loadbalancer engine state.

Note: the [show service loadbalancer](#) command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] service loadbalancer
```

CLI Mode

Basic

Related Commands

[show service loadbalancer](#)

show edge *edgeID* service loadbalancer error

Shows the loadbalancer latest errors information.

Note: the `show service loadbalancer error` command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] service loadbalancer error
```

CLI Mode

Basic

Related Commands

`show service loadbalancer error`

show edge *edgeID* service monitor

Shows the running status of the health monitor service.

Synopsis

```
show edge edgeID [.0|.1] service monitor
```

CLI Mode

Basic

Related Commands

`show service monitor`

show edge *edgeID* service monitor service

Shows the running status of health monitor instances.

Note: the `show service monitor` command on the NSX Edge device has more options available.

Synopsis

```
show edge edgeID [.0|.1] service monitor service [monitorName]
```

CLI Mode

Basic

Related Commands

`show service monitor service`

show edge *edgeID* system cpu

Shows the system CPU details.

Synopsis

```
show edge edgeID [.0|.1] system cpu
```

CLI Mode

Basic

Related Commands

`show system cpu`

show edge *edgeID* system memory

Shows the summary of memory utilization.

Synopsis

```
show edge edgeID[.0|.1] system memory
```

CLI Mode

Basic

Related Commands

```
show system memory
```

show edge *edgeID* system network-stats

Shows network statistics. For example, statistics for IP, ICMP, TCP and UDP.

Synopsis

```
show edge edgeID[.0|.1] system network-stats
```

CLI Mode

Basic

Related Commands

```
show system network-stats
```

show edge *edgeID* system storage

Shows the disk usage details for an NSX Edge.

Synopsis

```
show edge edgeID[.0|.1] system storage
```

CLI Mode

Basic

Related Commands

```
show system storage
```

show edge *edgeID* version

Shows the software version running on the virtual machine.

Synopsis

```
show edge edgeID[.0|.1] version
```

CLI Mode

Basic

Related Commands

```
show version
```

NSX Edge Commands

This chapter describes NSX Edge CLI commands. Log in as the user `admin` to use the NSX Edge commands.

clear nat counters

Resets NAT counters to zeros.

Synopsis

```
clear nat counters
```

CLI Mode

Privileged

clear arp *ipAddress*

Deletes an entry from the ARP table.

Synopsis

```
clear arp ipAddress
```

CLI Mode

Privileged

clear service dhcp lease

Removes DHCP lease information from the DHCP service.

Synopsis

```
clear service dhcp lease
```

CLI Mode

Privileged

clear service ipsec sa

Deletes the SA (Security Association) associated with the specified peer name.

Synopsis

```
clear service ipsec sa name
```

CLI Mode

Privileged

debug packet capture

Captures all packets processed by an NSX Edge, similar to a tcpdump. Enabling this command can slow NSX Edge performance. Packet debug capture is disabled by default. To disable packet capture, use `no` before the command.

Synopsis

```
[no] debug packet capture (intif | extif) [expression]
```

Option	Description
<code>intif extif</code>	The specific NSX Edge interface from which to capture packets.
<code>expression</code>	A tcpdump-formatted string. You must use an underscore between words in the expression.

CLI Mode

Privileged

debug packet display interface

Displays all packets captured by an NSX Edge interface, similar to a tcpdump. Enabling this command can impact NSX Edge performance.

To disable the display of packets, use `no` before the command.

Synopsis

```
[no] debug packet display interface [intName] [expression]
```

Option	Description
<code>intName</code>	The specific interface from which to capture packets.
<code>expression</code>	A tcpdump-formatted string. You must use an underscore between words in the expression.

CLI Mode

Privileged

Example

```
NSX-edge-1-0# debug packet display interface vNic_0 host_10.10.11.11_and_port_80
```

disable

Switches to Basic mode from Privileged mode.

Synopsis

```
disable
```

CLI Mode

Basic

Example

```
NSX-edge-1-0# disable
NSX-edge-1-0>
```

Related Commands[enable](#)**dnslookup *serverName***

Makes DNS lookup query to the specified DNS server.

Synopsis

```
dnslookup serverName
```

CLI Mode

Basic

dnslookup *serverName* (*hostname* | *ipAddress*)

Makes DNS lookup query for the specified host or IP address.

Synopsis

```
dnslookup serverName (hostname | ipAddress)
```

CLI Mode

Basic

enable

Switches to Privileged mode from Basic mode.

Synopsis

```
enable
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> enable
NSX-edge-1-0#
```

Related Commands[disable](#)**export tech-support scp**

Exports the system diagnostics to a specific location via Secure Copy Protocol (SCP). You can also export system diagnostics for an NSX virtual machine from the NSX Manager user interface.

Synopsis

```
export tech-support scp url
```

Option	Description
<i>url</i>	Enter the username and complete path of the destination. Standard scp/ssh syntax is used for username and machine name.

CLI Mode

Basic and Privileged

Example

```
NSX-edge-1-0# export tech-support scp user123@host123:file123
```

ping

Pings a destination by its hostname or IP address.

Enter CTRL+C to end ping replies.

Synopsis

```
ping (hostname | ipAddress)
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0# ping 192.168.1.1
```

ping interface addr

Pings an external destination from the internal address of a virtual machine protected by an NSX Edge. This command is useful for debugging IPSec-related issues.

Enter CTRL+C to end ping replies.

Synopsis

```
ping interface addr (sourceHostname | sourceAddress) (destHostname | destAddress)
```

Option	Description
<i>sourceHostname</i> <i>sourceAddress</i>	The hostname or internal IP address of a virtual machine protected by an NSX Edge.
<i>destHostname</i> <i>destAddress</i>	The hostname or IP address of the destination.

CLI Mode

Basic, Privileged

Example

```
vshieldEdge# ping interface addr 192.168.1.1 69.147.76.15
```

ping (ip | ipv6) ipAddress

Pings a destination by its hostname or IP address. Specify *ip* to ping an IPv4 address, or *ipv6* to ping an IPv6 address. Optionally specify the data packet size (not including the ICMP header) and “don’t fragment” flag.

Enter CTRL+C to end ping replies.

Synopsis

```
ping (ip | ipv6) ipAddress [size packetSize [nofrag]]
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-2-0> ping ip 192.168.110.10 size 32
PING 192.168.110.10 (192.168.110.10) 32(60) bytes of data.
40 bytes from 192.168.110.10: icmp_seq=1 ttl=127 time=9.37 ms
```

```

40 bytes from 192.168.110.10: icmp_seq=2 ttl=127 time=10.6 ms
40 bytes from 192.168.110.10: icmp_seq=3 ttl=127 time=2.98 ms
40 bytes from 192.168.110.10: icmp_seq=4 ttl=127 time=2.26 ms
40 bytes from 192.168.110.10: icmp_seq=5 ttl=127 time=3.86 ms
^C
--- 192.168.110.10 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4007ms
rtt min/avg/max/mdev = 2.266/5.832/10.667/3.483 ms

```

show arp

Shows the ARP table.

ARP State	Definition
PERMANENT	The entry is valid forever. It can only be removed administratively
NOARP	The entry is valid. It will not be checked again, but it can be removed when its lifetime expires
REACHABLE	The entry is valid until the reachability timeout expires
STALE	The entry is valid but suspicious
DELAY	The kernel is waiting to confirm the state of a stale neighbor

Synopsis

```
show arp
```

CLI Mode

Basic

Example

```

vShield Edge ARP Cache:
IP Address                Interface  MAC Address      State
10.115.172.1              vNic_0    00:00:0c:07:ac:01 DELAY
10.115.172.161           vNic_0    00:0c:29:ee:40:b9 STALE

```

show clock

Shows the current time and date of the virtual machine. If you use an NTP server for time synchronization, the time is based on Coordinated Universal Time (UTC).

Synopsis

```
show clock
```

CLI Mode

Basic, Privileged

Example

```

NSX-edge-1-0# show clock
Wed Apr 29 00:08:24 GMT 2015

```

show configuration application-set

Show the application sets (Service Groups) used in the Edge firewall configuration.

Synopsis

```
show configuration application-set
```

CLI Mode

Basic

Example

NSX-edge-1-0> show configuration

vShield Edge ApplicationSet Config:

```

{
  "applicationSet" : [
    {
      "application" : [],
      "id" : "application-370"
    },
    {
      "application" : [
        {
          "protocol" : [
            "6"
          ],
          "icmpType" : [],
          "sourcePort" : [],
          "port" : [
            "2100"
          ]
        },
        {
          "protocol" : [
            "6"
          ],
          "icmpType" : [],
          "sourcePort" : [],
          "port" : [
            "1575"
          ]
        },
        {
          "protocol" : [
            "6"
          ],
          "icmpType" : [],
          "sourcePort" : [],
          "port" : [
            "8080"
          ]
        },
        {
          "protocol" : [
            "6"
          ],
          "icmpType" : [],
          "sourcePort" : [],
          "port" : [
            "2482"
          ]
        },
        {
          "protocol" : [
            "6"
          ],
          "icmpType" : [],
          "sourcePort" : [],
          "port" : [
            "1521"
          ]
        }
      ]
    }
  ]
}

```

```

        "protocol" : [
            "6"
        ],
        "icmpType" : [],
        "sourcePort" : [],
        "port" : [
            "2481"
        ]
    },
    {
        "protocol" : [
        ],
    },
    {
        "protocol" : [
            "6"
        ],
        "icmpType" : [],
        "sourcePort" : [],
        "port" : [
            "1521"
        ]
    },
    {
        "protocol" : [
            "6"
        ],
        "icmpType" : [],
        "sourcePort" : [],
        "port" : [
            "2481"
        ]
    },
    {
        "protocol" : [
            "6"
        ],
        "icmpType" : [],
        "sourcePort" : [],
        "port" : [
            "1526"
        ]
    }
    ],
    "id" : "applicationgroup-22"
}
]
}
}

```

show configuration bgp

Shows the BGP configuration.

Synopsis

```
show configuration bgp
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration
```

```
-----
vShield Edge BGP Routing Protocol Config:
{
  "bgp" : {
```

```

    "gracefulRestart" : true,
    "redistribute" : {
      "rules" : [
        {
          "fromOSPF" : false,
          "fromBGP" : false,
          "fromISIS" : false,
          "fromStatic" : false,
          "fromConnected" : true,
          "action" : "permit",
          "id" : 0,
          "prefix" : null
        }
      ],
      "enabled" : true
    },
    "localAS" : 65001,
    "defaultOriginate" : true,
    "neighbours" : [
      {
        "remoteAS" : 65001,
        "password" : null,
        "keepAliveTimer" : 1,
        "holdDownTimer" : 3,
        "weight" : 60,
        "protocolAddress" : null,
        "ipAddress" : "192.168.10.6",
        "filters" : [],
        "forwardingAddress" : null
      },
      {
        "remoteAS" : 65002,
        "action" : "permit",
        "id" : 0,
        "prefix" : null
      }
    ],
    "enabled" : true
  },
  "localAS" : 65001,
  "defaultOriginate" : true,
  "neighbours" : [
    {
      "remoteAS" : 65001,
      "password" : null,
      "keepAliveTimer" : 1,
      "holdDownTimer" : 3,
      "weight" : 60,
      "protocolAddress" : null,
      "ipAddress" : "192.168.10.6",
      "filters" : [],
      "forwardingAddress" : null
    },
    {
      "remoteAS" : 65002,
      "password" : null,
      "keepAliveTimer" : 1,
      "holdDownTimer" : 3,
      "weight" : 60,
      "protocolAddress" : null,
      "ipAddress" : "192.168.100.2",
      "filters" : [],
      "forwardingAddress" : null
    }
  ],
  "enabled" : true
}
}

```

show configuration certificatestore

Shows the certificate store configuration.

Synopsis

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration certificatestore
```

```
-----
vShield Edge Certificate Store Config:
{
  "certificateStoreConfig" : {
    "certificates" : [],
    "caCertificates" : [],
    "crls" : []
  }
}
```

show configuration dhcp

Shows NSX Edge IP address pooling and one-to-one static IP address allocation.

Synopsis

```
show configuration dhcp
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration dhcp
```

```
-----
vShield Edge DHCP Config:
{
  "dhcp" : {
    "relay" : null,
    "logging" : {
      "enable" : false,
      "logLevel" : "info"
    },
    "enable" : true,
    "bindings" : {
      "vNic_1" : {
        "staticBindings" : [],
        "ipPools" : [
          {
            "subnetMask" : "255.255.255.0",
            "maxLeaseTime" : "86400",
            "endIp" : "11.1.1.100",
            "primaryNameServer" : null,
            "defaultGateway" : "11.1.1.1",
            "defaultLeaseTime" : "86400",
            "domainName" : null,
            "secondaryNameServer" : null,
            "startIp" : "11.1.1.2"
          }
        ]
      }
    }
  }
}
```

show configuration dns

Shows the DNS configuration.

Synopsis

```
show configuration dns
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration dns
```

```
-----  
vShield Edge DNS Config:
```

```
{
  "dns" : {
    "views" : [
      {
        "recursion" : true,
        "enableForwarding" : true,
        "name" : "vsm-default-view",
        "zones" : null,
        "forwarders" : [
          "10.112.0.1",
          "10.112.0.2"
        ],
        "matchInterfaces" : [
          "any"
        ],
        "matchClients" : [
          "any"
        ]
      }
    ],
    "logging" : {
      "enable" : false,
      "logLevel" : "info"
    },
    "enable" : true,
    "listenOn" : [
      "10.115.172.18",
      "11.1.1.1"
    ],
    "cacheSize" : 16,
    "zones" : null,
    "forwarders" : [
      "10.112.0.1",
      "10.112.0.2"
    ]
  }
}
```

show configuration firewall

Shows the firewall configuration.

Synopsis

```
show configuration firewall
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration firewall
```

```
-----
vShield Edge Firewall Config:
```

```
{
  "firewall" : {
    "globalConfig" : {
      "ipGenericTimeout" : 120,
      "icmp6Timeout" : 10,
      "tcpPickOngoingConnections" : false,
      "tcpAllowOutOfWindowPackets" : false,
      "tcpTimeoutEstablished" : 3600,
      "disableFirewall" : false,
      "dropInvalidTraffic" : true,
      "tcpTimeoutClose" : 30,
      "icmpTimeout" : 10,
      "udpTimeout" : 60,
      "tcpTimeoutOpen" : 30,
      "tcpSendResetForClosedVsePorts" : true,
      "logInvalidTraffic" : false
    },
    "rules" : [
      {
        "source" : [
          "vse"
        ],
        "dstIface" : [],
        "destination" : [
          "any"
        ],
        "matchTranslated" : false,
        "sourcePort" : [],
        "description" : "firewall",
        "service" : [
          "any:any:any"
        ],
        "srcIface" : [],
        "logging" : {
          "enable" : false,
          "logLevel" : null
        },
        "action" : "accept",
        "id" : 131074
      },
      {
        "source" : [
          "vnic-index-1"
        ],
        "dstIface" : [],
        "destination" : [
          "vse"
        ],
        "matchTranslated" : false,
        "sourcePort" : [],
        "description" : "dhcp",
        "service" : [
          "17:67:any"
        ],
        "srcIface" : [],
        "logging" : {
          "enable" : false,
          "logLevel" : null
        },
        "action" : "accept",
        "id" : 131075
      }
    ]
  }
}
```

```

.
.
    {
      "source" : [
        "any"
      ],
      "dstIface" : [],
      "destination" : [
        "any"
      ],
      "matchTranslated" : false,
      "sourcePort" : [],
      "description" : "default rule for ingress traffic",
      "service" : [
        "any:any:any"
      ],
      "srcIface" : [],
      "logging" : {
        "enable" : false,
        "logLevel" : null
      },
      "action" : "accept",
      "id" : 131073
    }
  ]
}

```

show configuration global

Shows the configuration for all NSX Edge services.

Synopsis

```
show configuration global
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration global
```

```

-----
vShield Edge Global Config:
{
  "global" : {
    "edgeAssistId" : 0,
    "enableTcpLoose" : false,
    "hostname" : "NSX-edge-1-0",
    "hypervisorAssist" : false,
    "size" : "compact",
    "fips" : {
      "enable" : false
    },
    "enableAesni" : true,
    "tenantId" : "default",
    "haIndex" : "0",
    "distributedRouter" : false
  }
}

```

show configuration gslb

Show the GSLB (Global Server Load Balancer) configuration.

Synopsis

```
show configuration gslb [gip | monitor | pool | site]
```

Option	Description
gip	Show GSLB global IP configuration.
monitor	Show GSLB health monitor configuration.
pool	Shows GSLB pools configuration.
site	Shows GSLB site configuration.

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration gslb
```

```
-----
vShield Edge GSLB Config:
```

```
{
  "monitorService" : {
    "logging" : {
      "enable" : true,
      "logLevel" : "info"
    },
    "enable" : true,
    "healthMonitors" : [
      {
        "extension" : null,
        "send" : null,
        "expected" : null,
        "maxRetries" : 3,
        "name" : "default_tcp_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : null,
        "type" : "tcp",
        "method" : null
      },
      {
        "extension" : null,
        "send" : null,
        "expected" : null,
        "maxRetries" : 3,
        "name" : "default_http_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : "/",
        "type" : "http",
        "method" : "GET"
      },
      {
        "name" : "default_http_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : "/",
        "type" : "http",
        "method" : "GET"
      },
      {
        "extension" : null,
        "send" : null,
        "expected" : null,

```

```

        "maxRetries" : 3,
        "name" : "default_https_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : "/",
        "type" : "https",
        "method" : "GET"
    }
]
},
"gslb" : {
    "ports" : null,
    "logging" : null,
    "globalIps" : null,
    "enable" : false,
    "sites" : null,
    "serviceTimeout" : null,
    "listenOn" : null,
    "security" : null,
    "persistentCache" : null,
    "pools" : null
}
}
}

```

show configuration highavailability

Shows the high availability configuration.

Synopsis

```
show configuration highavailability
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration highavailability
```

```

-----
vShield Edge High Availability Config:
{
  "highAvailability" : {
    "enable" : false,
    "heartbeatInterval" : 0,
    "logging" : null,
    "interface" : null,
    "heartbeatDeadTime" : 0,
    "security" : {
      "psk" : "*****",
      "enable" : false,
      "encryptionAlgorithm" : null,
      "authenticationSignature" : {
        "type" : "sha1",
        "key" : "962215d5d6a49a1ae738f5c99087cb2efd87fd65"
      }
    }
  },
  "nodes" : [],
  "heartbeatWarnTime" : 0,
  "heartbeatInitDead" : 0
}
}

```

show configuration interface

Shows the interface configuration.

Synopsis

```
show configuration interface
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration interface
```

```
-----
vShield Edge Interface Config:
{
  "interfaceConfig" : {
    "vNic_0" : {
      "status" : "up",
      "name" : "uplink",
      "sendRedirects" : false,
      "index" : 0,
      "enableProxyArp" : false,
      "lifName" : null,
      "mac" : "00:50:56:a2:57:f9",
      "subnets" : [
        {
          "primary" : "10.115.172.18",
          "address" : [
            "10.115.172.18"
          ],
          "subnet" : "10.115.172.0/24"
        }
      ],
      "mtu" : 1500
    },
    "vNic_9" : {
      "status" : "down",
      "name" : "vnic9",
      "sendRedirects" : true,
      "index" : 9,
      "enableProxyArp" : false,
      "lifName" : null,
      "mac" : "00:50:56:a2:73:98",
      "subnets" : [],
      "mtu" : 1500
    },
    .
    .
    ,

    "vNic_6" : {
      "status" : "down",
      "name" : "vnic6",
      "sendRedirects" : true,
      "index" : 6,
      "enableProxyArp" : false,
      "lifName" : null,
      "mac" : "00:50:56:a2:38:33",
      "subnets" : [],
      "mtu" : 1500
    },
    "vNic_1" : {
      "status" : "up",
      "name" : "int",
      "sendRedirects" : false,
      "index" : 1,
      "enableProxyArp" : false,
      "lifName" : null,
      "mac" : "00:50:56:a2:75:f0",
      "subnets" : [
```

```

        {
            "primary" : "11.1.1.1",
            "address" : [
                "11.1.1.1"
            ],
            "subnet" : "11.1.1.0/24"
        }
    ],
    "mtu" : 1500
}
}
}

```

show configuration interface-set

Shows the interface set configuration.

Synopsis

```
show configuration interface-set
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration interface-set
```

```
-----
vShield Edge InterfaceSet Config:
```

```

{
  "interfaceSet" : [
    {
      "value" : [
        "vNic_1"
      ],
      "id" : "vnic-index-1"
    },
    {
      "value" : [
        "vNic_0"
      ],
      "id" : "vnic-index-0"
    },
    {
      "value" : [
        "vse"
      ],
      "id" : "vse"
    },
    {
      "value" : [
        "vNic_9"
      ],
      "id" : "vnic-index-9"
    },
    {
      "value" : [
        "vNic_5"
      ],
      "id" : "vnic-index-5"
    },
    {
      "value" : [
        "vNic_8"
      ],
      "id" : "vnic-index-8"
    }
  ],
}

```

```

    {
      "value" : [
        "vNic_4"
      ],
      "id" : "vnic-index-4"
    },
    {
      "value" : [
        "vNic_0"
      ],
      "id" : "external"
    },
    {
      "value" : [
        "vNic_7"
      ],
      "id" : "vnic-index-7"
    },
    {
      "value" : [
        "vNic_3"
      ],
      "id" : "vnic-index-3"
    },
    {
      "value" : [
        "vNic_6"
      ],
      "id" : "vnic-index-6"
    },
    {
      "value" : [
        "vNic_0"
      ],
      "id" : "external"
    },
    {
      "value" : [
        "vNic_7"
      ],
      "id" : "vnic-index-7"
    },
    {
      "value" : [
        "vNic_3"
      ],
      "id" : "vnic-index-3"
    },
    {
      "value" : [
        "vNic_6"
      ],
      "id" : "vnic-index-6"
    },
    {
      "value" : [
        "vNic_2"
      ],
      "id" : "vnic-index-2"
    },
    {
      "value" : [
        "vNic_1"
      ],
      "id" : "internal"
    }
  ]
}

```

show configuration ipsec

Shows certificate configuration for IPsec VPN.

Synopsis

```
show configuration ipsec
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration ipsec
```

vShield Edge IPsec VPN Config:

```
{
  "ipsec" : {
    "sites" : [
      {
        "certificate" : null,
        "encryptionAlgorithm" : "aes",
        "enabled" : true,
        "mtu" : null,
        "psk" : "****",
        "extension" : null,
        "peerSubnets" : [
          "192.168.2.0/24"
        ],
        "peerIp" : "10.115.172.19",
        "name" : "IPsec",
        "description" : null,
        "localSubnets" : [
          "11.1.1.0/24"
        ],
        "dhGroup" : "dh2",
        "peerId" : "10.115.172.19",
        "enablePfs" : true,
        "localIp" : "10.115.172.18",
        "authenticationMode" : "psk",
        "localId" : "10.115.172.18"
      }
    ],
    "enable" : true,
    "logging" : {
      "enable" : false,
      "logLevel" : "info"
    },
    "global" : {
      "extension" : null,
      "crlCertificates" : [],
      "serviceCertificate" : null,
      "pskForDynamicIp" : null,
      "id" : null,
      "caCertificates" : []
    }
  }
}
```

show configuration ipset

Shows IP address groups (IP Sets) configured on the NSX Edge.

Synopsis

```
show configuration ipset
```

CLI Mode

Basic

Example

NSX-edge-1-0> show configuration ipset

vShield Edge IpSet Config:

```
{
  "ipSet" : [
    {
      "value" : [],
      "id" : "ipset-1"
    }
  ]
}
```

show configuration isis

Shows the ISIS routing configuration.

Synopsis**CLI Mode**

Basic

Example

NSX-edge-1-0> show configuration isis

vShield Edge IS-IS Routing Protocol Config:

```
{
  "is-isis" : {
    "areaIds" : [
      "23"
    ],
    "domainPassword" : null,
    "areaPassword" : null,
    "isType" : "level-1-2",
    "interfaces" : [
      {
        "meshGroup" : null,
        "priority" : 64,
        "password" : null,
        "circuitType" : "level-1",
        "lspInterval" : 33,
        "metric" : 10,
        "vnic" : "vNic_0",
        "helloMultiplier" : 3,
        "helloInterval" : 10000
      }
    ],
    "redistribute" : {
      "rules" : [],
      "enabled" : false
    },
    "systemId" : "1921.6810.0003",
    "enabled" : true
  }
}
```

show configuration l2vpn

Shows L2 VPN configuration.

Synopsis

```
show configuration l2vpn
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration l2vpn
```

```
-----
{
  "l2vpn" : {
    "ciphers" : [
      "AES256-SHA"
    ],
    "listenerPort" : 443,
    "clientVnicIndex" : null,
    "filters" : [],
    "serverPort" : null,
    "caCertificate" : null,
    "encryptionAlgorithm" : null,
    "listenerIp" : "10.110.18.190",
    "peerSites" : [
      {
        "vseVnicNames" : [
          "vNic_10",
          "vNic_11",
          "vNic_12",
          "vNic_13",
          "vNic_14",
          "vNic_15",
          "vNic_16",
          "vNic_17",
          "vNic_18",
          "vNic_19"
        ],
        "name" : "site1",
        "filters" : [],
        "l2vpnUser" : {
          "password" : "****",
          "userId" : "user1"
        }
      },
      {
        "vseVnicNames" : [
          "vNic_20",
          "vNic_21",
          "vNic_22",
          "vNic_23",
          "vNic_24",
          "vNic_25",
          "vNic_26",
          "vNic_27",
          "vNic_28",
          "vNic_29"
        ],
        "name" : "site2",
        "filters" : [],
        "l2vpnUser" : {
          "password" : "****",
          "userId" : "user2"
        }
      }
    ],
    "clientProxySetting" : null,
    "enable" : true,
    "trunkedVnicIndexes" : [
      1
    ]
  }
}
```

```

    ],
    "serverVnicIndex" : null,
    "l2vpnUsers" : [],
    "serverAddress" : null,
    "logging" : {
        "enable" : true,
        "logLevel" : "info"
    },
    "vseVnicNames" : null,
    "serverCertificate" : null
}
}
}

```

show configuration loadbalancer

Shows external, or public, IP address mapped to internal servers for load balancing. Note that there are a number of specialized `show configuration loadbalancer` sub-commands explained after this one.

Synopsis

```
show configuration loadbalancer
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration loadbalancer
```

```

-----
vShield Edge Loadbalancer Config:
{
  "monitorService" : {
    "logging" : {
      "enable" : false,
      "logLevel" : "info"
    },
    "enable" : true,
    "healthMonitors" : [
      {
        "extension" : null,
        "send" : null,
        "expected" : null,
        "maxRetries" : 3,
        "name" : "default_tcp_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : null,
        "type" : "tcp",
        "method" : null
      },
      {
        "extension" : null,
        "send" : null,
        "expected" : null,
        "maxRetries" : 3,
        "name" : "default_http_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : "/",
        "type" : "http",
        "method" : "GET"
      },
      {
        "extension" : null,
        "send" : null,

```

```

        "expected" : null,
        "maxRetries" : 3,
        "name" : "default_https_monitor",
        "interval" : 5,
        "receive" : null,
        "timeout" : 15,
        "url" : "/",
        "type" : "https",
        "method" : "GET"
    }
]
},
"loadBalancer" : {
    "logging" : {
        "enable" : false,
        "logLevel" : "info"
    },
    "enable" : true,
    "vips" : [
        {
            "maxConn" : 0,
            "rateLimit" : 0,
            "applicationRules" : null,
            "mode" : "http",
            "name" : "VSIP",
            "accelerationEnabled" : false,
            "redirection" : null,
            "serverSsl" : null,
            "serverSslEnabled" : false,
            "insertXForwardedFor" : false,
            "sessionPersistence" : null,
            "ipAddresses" : [
                "[10.115.172.18]:80"
            ],
            "defaultPool" : null,
            "clientSsl" : null
        }
    ],
    "applicationRules" : null,
    "objectSet" : null,
    "accelerationEnabled" : false,
    "pools" : [
        {
            "members" : [
                {
                    "maxConn" : 0,
                    "minConn" : 0,
                    "name" : "http-Server",
                    "objectId" : null,
                    "ipAddress" : "11.1.1.2",
                    "port" : 80,
                    "weight" : 1,
                    "monitorPort" : 80,
                    "healthMonitors" : [
                        "default_http_monitor"
                    ],
                    "condition" : "enabled"
                }
            ],
            "algorithm" : "round-robin",
            "transparent" : {
                "enable" : false
            },
            "name" : "http-pool"
        }
    ]
}
}
}

```

show configuration loadbalancer monitor

Shows service monitor configuration for the load balancer.

Synopsis

```
show configuration loadbalancer monitor [monitorName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration loadbalancer monitor
```

```
-----
vShield Edge Loadbalancer Config:
{
  "healthMonitors" : [
    {
      "extension" : null,
      "send" : null,
      "expected" : null,
      "maxRetries" : 3,
      "name" : "default_tcp_monitor",
      "interval" : 5,
      "receive" : null,
      "timeout" : 15,
      "url" : null,
      "type" : "tcp",
      "method" : null
    },
    {
      "extension" : null,
      "send" : null,
      "expected" : null,
      "maxRetries" : 3,
      "name" : "default_http_monitor",
      "interval" : 5,
      "receive" : null,
      "timeout" : 15,
      "url" : "/",
      "type" : "http",
      "method" : "GET"
    },
    {
      "extension" : null,
      "send" : null,
      "expected" : null,
      "maxRetries" : 3,
      "name" : "default_https_monitor",
      "interval" : 5,
      "receive" : null,
      "timeout" : 15,
      "url" : "/",
      "type" : "https",
      "method" : "GET"
    }
  ]
}
```

show configuration loadbalancer pool

Shows load balancer pool configuration.

Synopsis

```
show configuration loadbalancer pool [poolName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration loadbalancer pool
```

```
-----
vShield Edge Loadbalancer Config:
{
  "pools" : [
    {
      "members" : [
        {
          "maxConn" : 0,
          "minConn" : 0,
          "name" : "http-Server",
          "objectId" : null,
          "ipAddress" : "11.1.1.2",
          "port" : 80,
          "weight" : 1,
          "monitorPort" : 80,
          "healthMonitors" : [
            "default_http_monitor"
          ],
          "condition" : "enabled"
        }
      ],
      "algorithm" : "round-robin",
      "transparent" : {
        "enable" : false
      },
      "name" : "http-pool"
    }
  ]
}
```

show configuration loadbalancer rule

Shows load balancer application rules.

Synopsis

```
show configuration loadbalancer rule [ruleName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration loadbalancer rule
```

```
-----
vShield Edge Loadbalancer Config:
{
  "applicationRules" : [
    {
      "script" : "# log the name of the virtual server\ncapture request header Host len
32\n\n# log the amount of data uploaded during a POST\ncapture request header
Content-Length len 10\n\n# log the beginning of the referrer\ncapture request
header Referer len 20\n",
      "name" : "advanced-logging"
    }
  ]
}
```

show configuration loadbalancer virtual

Shows virtual server (Virtual IP) configuration.

Synopsis

```
show configuration loadbalancer virtual [virtualServerName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration loadbalancer virtual
```

```
-----
vShield Edge Loadbalancer Config:
{
  "vips" : [
    {
      "maxConn" : 0,
      "rateLimit" : 0,
      "applicationRules" : null,
      "mode" : "http",
      "name" : "VSIP",
      "accelerationEnabled" : false,
      "redirection" : null,
      "serverSsl" : null,
      "serverSslEnabled" : false,
      "insertXForwardedFor" : false,
      "sessionPersistence" : null,
      "ipAddresses" : [
        "10.115.172.18":80"
      ],
      "defaultPool" : http-pool,
      "clientSsl" : null
    }
  ]
}
```

show configuration nat

Shows the NAT configuration.

Synopsis

```
show configuration nat
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration nat
```

```
-----
vShield Edge NAT Config:
{
  "dnat" : [
    {
      "protocol" : "17",
      "internalIp" : "10.115.172.18",
      "externalPort" : "500",
      "comments" : "ipsec",
      "ruleId" : 200706,
      "icmpType" : null,
      "internalPort" : "500",
      "logging" : {
        "enable" : false,

```

```

        "logLevel" : null
    },
    "interface" : "vNic_0",
    "externalIp" : "10.115.172.18"
},
{
    "protocol" : "17",
    "internalIp" : "10.115.172.18",
    "externalPort" : "4500",
    "comments" : "ipsec",
    "ruleId" : 200707,
    "icmpType" : null,
    "internalPort" : "4500",
    "logging" : {
        "enable" : false,
        "logLevel" : null
    },
    "interface" : "vNic_0",
    "externalIp" : "10.115.172.18"
},
{
    "protocol" : "50",
    "internalIp" : "10.115.172.18",
    "externalPort" : "any",
    "comments" : "ipsec",
    "ruleId" : 200708,
    "icmpType" : null,
    "internalPort" : "any",
    "logging" : {
        "enable" : false,
        "logLevel" : null
    },
    "interface" : "vNic_0",
    "externalIp" : "10.115.172.18"
},
{
    "protocol" : "51",
    "internalIp" : "10.115.172.18",
    "externalPort" : "any",
    "comments" : "ipsec",
    "ruleId" : 200709,
    "icmpType" : null,
    "internalPort" : "any",
    "logging" : {
        "enable" : false,
        "logLevel" : null
    },
    "interface" : "vNic_0",
    "externalIp" : "10.115.172.18"
},
{
    "protocol" : "6",
    "internalIp" : "10.115.172.18",
    "externalPort" : "443",
    "comments" : "sslvpn",
    "ruleId" : 196609,
    "icmpType" : null,
    "internalPort" : "443",
    "logging" : {
        "enable" : false,
        "logLevel" : null
    },
    "interface" : "vNic_0",
    "externalIp" : "10.115.172.18"
},
{
    "protocol" : "6",
    "internalIp" : "10.115.172.18",

```

```

        "externalPort" : "80",
        "comments" : "loadBalancer",
        "ruleId" : 200710,
        "icmpType" : null,
        "internalPort" : "80",
        "logging" : {
            "enable" : false,
            "logLevel" : null
        },
        "interface" : "vNic_0",
        "externalIp" : "10.115.172.18"
    }
],
"snat" : []
}

```

show configuration ospf

Shows the OSPF configuration.

Synopsis

```
show configuration ospf
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration ospf
vShield Edge OSPF Routing Protocol Config:
```

```

{
  "ospf" : {
    "defaultOriginate" : false,
    "forwardingAddress" : null,
    "gracefulRestart" : true,
    "interfaces" : [
      {
        "cost" : 1,
        "priority" : 128,
        "areaId" : 51,
        "mtuIgnore" : false,
        "vnic" : "vNic_1",
        "deadInterval" : 40,
        "helloInterval" : 10
      },
      {
        "cost" : 1,
        "priority" : 128,
        "areaId" : 0,
        "mtuIgnore" : false,
        "vnic" : "vNic_2",
        "deadInterval" : 40,
        "helloInterval" : 10
      }
    ],
    "redistribute" : {
      "rules" : [
        {
          "fromOSPF" : false,
          "fromBGP" : false,
          "fromISIS" : false,
          "fromStatic" : true,
          "fromConnected" : false,
          "action" : "permit",
          "id" : 0,
          "prefix" : null
        }
      ]
    }
  }
}

```

```

    }
  ],
  "enabled" : true
},
"protocolAddress" : null,
"areas" : [
  {
    "areaId" : 51,
    "authenticationType" : "none",
    "authenticationSecret" : null,
    "type" : "nssa"
  },
  {
    "areaId" : 0,
    "authenticationType" : "none",
    "authenticationSecret" : null,
    "type" : "normal"
  },
  {
    "areaId" : 1,
    "authenticationType" : "none",
    "authenticationSecret" : null,
    "type" : "normal"
  }
],
"enabled" : true
}
}

```

show configuration routing-global

Shows the global routing configuration.

Synopsis

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration routing-global
```

```

-----
vShield Edge Routing Global Config:
{
  "routingGlobal" : {
    "logging" : {
      "enable" : true,
      "logLevel" : "info"
    },
    "routerId" : "192.168.100.3",
    "ecmp" : true
  }
}

```

show configuration snmp

Shows the SNMP configuration.

Synopsis

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration snmp
```

```
-----
vShield Edge SNMP Agent Config:
```

```
{
  "snmp" : null
}
```

show configuration sslvpn-plus

Shows the SSL VPN configuration.

Synopsis

```
show configuration sslvpn-plus
```

CLI Mode

Basic

show configuration static-routing

Shows the static routes defined for the NSX Edge data packets.

Synopsis

```
show configuration static-routing
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration static-routing
```

```
-----
vShield Edge Static Routing Config:
```

```
{
  "staticRouting" : [
    {
      "gatewayAddress" : null,
      "destinationNetwork" : "0.0.0.0/0",
      "adminDistance" : 0,
      "gatewayAddresses" : [
        "192.168.100.2"
      ],
      "interface" : "vNic_0",
      "description" : null,
      "mtu" : 1500
    }
  ]
}
```

show configuration syslog

Shows remote syslog servers defined for the NSX Edge.

Synopsis

```
show configuration syslog
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show configuration syslog
```

```
-----
vShield Edge Syslog Config:
```

```
{
  "syslog" : {
    "protocol" : "tcp",
    "destinationHost" : [
      "11.1.1.100",
      "11.1.1.2"
    ]
  }
}
```

show eventmgr

Shows event manager statistics.

Synopsis

```
show eventmgr
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show eventmgr
```

```
-----
messagebus      : disabled
debug           : 0
profiling       : 0
cfg_rx          : 1865
cfg_rx_msgbus   : 0
cfg_rx_err      : 0
cfg_exec_err    : 0
cfg_resp       : 0
cfg_resp_err    : 0
cfg_resp_ln_err: 0
fastquery_rx    : 926
fastquery_err   : 1
clearcmd_rx     : 931
clearcmd_err    : 0
ha_rx           : 0
ha_rx_err       : 0
ha_exec_err     : 0
status_rx       : 38
status_rx_err   : 0
status_svr      : 27
status_evt      : 0
status_evt_push: 0
status_ha       : 0
status_ver      : 6
status_sys      : 5
status_cmd      : 0
status_svr_err  : 0
status_evt_err  : 0
status_sys_err  : 0
status_ha_err   : 0
status_ver_err  : 0
status_cmd_err  : 0
evt_report      : 0
evt_report_err  : 0
hc_report       : 0
hc_report_err   : 0
cli_rx         : 1
```

```

cli_resp      : 0
cli_resp_err  : 0
counter_reset : 0
----- Health Status -----
system status : good
ha state      : active
cfg version   : 17
generation    : 0
server status : 1
syslog-ng     : 1
haproxy       : 0
ipsec         : 0
sslvpn        : 0
l2vpn         : 0
dns           : 0
dhcp          : 0
heartbeat     : 0
monitor       : 0
gslb          : 0
----- System Events -----

```

show firewall

Shows firewall packet counters along with firewall rules that specify what to do with a packet that matches.

Synopsis

```
show firewall
```

CLI Mode

Basic

show firewall flows

Shows firewall packet counters along with packet flows.

Synopsis

```
show firewall flows
```

CLI Mode

Basic

show firewall flows top *n*

Shows firewall packet counters along with top *n* number of packet flows.

Synopsis

```
show firewall flows top n
```

CLI Mode

Basic

show firewall flows top *n* sort-by bytes

Shows firewall packet counters along with top *n* number of packet flows sorted by byte numbers.

Synopsis

```
show firewall flows top n sort-by-bytes
```

CLI Mode

Basic

show firewall flows top *n* sort-by pkts

Shows firewall packet counters along with top *n* number of packet flows sorted by packet numbers.

Synopsis

```
show firewall flows top n sort-by-pkts
```

CLI Mode

Basic

show firewall rule-id *id*

Shows firewall rule information filtered by rule-id.

Synopsis

```
show firewall rule-id id
```

CLI Mode

Basic

show firewall rule-id *id* flows

Shows firewall rule information and flow information filtered by rule-id.

Synopsis

```
show firewall rule-id id flows
```

CLI Mode

Basic

show firewall rule-id *id* flows top *n*

Shows firewall packet counters filtered by rule-id *id* along with top *n* number of packet flows.

Synopsis

```
show firewall rule-id id flows top n
```

CLI Mode

Basic

show firewall rule-id *id* flows top *n* sort-by bytes

Shows firewall packet counters filtered by rule-id *id* along with top *n* number of packet flows sorted by byte numbers.

Synopsis

```
show firewall rule-id id flows top n sort-by-bytes
```

CLI Mode

Basic

show firewall rule-id *id* flows top *n* sort-by pkts

Shows firewall packet counters filtered by rule-id *id* along with top *n* number of packet flows sorted by packet numbers.

Synopsis

```
show firewall rule-id id flows top n sort-by-pkts
```

CLI Mode

Basic

show flowstats

Shows metrics related to the internal implementation of the flow-based services provided by NSX Edge.

The following four metrics provide useful operational support indicators, which can be utilised to assist with NSX Edge services capacity monitoring, and as warning signs for presence of corrupted or undesirable traffic that is reaching the Edge:

Total Flow Capacity displays the total number of concurrently open connections that the Edge is configured to support.

entries displays the total number of currently open connections, which includes sockets in ESTABLISHED, SYN_SENT, and TIME_WAIT state. If this counter reaches the Total Flow Capacity, new connections through to Edge services, such as Edge Load Balancer, would be dropped.

invalid displays the number of packets seen with Invalid L3, L4 Headers, which could be an indicator of presence of an endpoint (VM or physical) that may be sending corrupted packets, either due to a configuration/defect, or intentionally.

drop displays the number of packets dropped due to Edge L3/L4 engine's inability to handle the packet. This can be caused by Edge resource exhaustion, or by corrupt L3/L4 headers, in which case "invalid" counter will also be increased.

Metric	Explanation
Total Flow Capacity	Maximum number of concurrent connections that NSX Edge allows
entries	Current active connections
searched	Max depth of hash table chain seen so far
found	Number of entries found through hash table lookup
new	Number of new connections created so far
invalid	Number of packets seen with Invalid L3, L4 headers
ignore	Number of untracked connections: loopback or due to NOTRACK target
delete	Number of entries deleted so far: done with the connection
delete_list	Number of entries deleted due to inactivity timeout
insert	Number of entries successfully inserted into hash table
insert_failed	Number of entries failed to add to hash table due to a race condition between NAT and contrack
drop	Number of packets dropped, L3/L4 protocols unable to handle the packet
early_drop	Number of dying entries forcefully deleted to make a room for a new connection)
icmp_error	Not used/obsolete
expect_new	Number of actual expected connections seen so far
expect_create	Number of expected entries (holes) created so far by ALGs
expect_delete	Number of expected entries deleted due to timeout
search_restart	Number of times a hash table chain search is restarted due to a change during search operation

Synopsis

```
show flowstats
```

CLI Mode

Basic

Example

```
vShieldEdge> show flowstats
Total Flow Capacity: 1000000
Current Statistics :
entries                76
searched               31
found                 13985
new                   12657
invalid                0
ignore                413
delete                12567
delete_list           11846
insert                11937
insert_failed         0
drop                  0
early_drop            0
icmp_error            0
expect_new            1
expect_create         2
expect_delete         2
search_restart        0
```

show flowtable

Shows packet flows in a table.

Synopsis

```
show flowtable
```

CLI Mode

Basic

show flowtable expect

Shows expected flows.

Synopsis

```
show flowtable expect
```

CLI Mode

Basic

Example

```
vShieldEdge> show flowtable expect
Total flows: 0
```

show flowtable rule-id *id*

Shows packet flows matched by rule-id.

Synopsis

```
show flowtable rule-id id
```

CLI Mode

Basic

show flowtable rule-id *id* top *n*Shows the top *n* number of packet flows matched by rule-id.**Synopsis**show flowtable rule-id *id* top *n***CLI Mode**

Basic

show flowtable rule-id *id* top *n* sort-by bytesShows top *n* number of packet flows matched by rule-id sorted by byte numbers.**Synopsis**show flowtable rule-id *id* top *n* sort-by bytes**CLI Mode**

Basic

show flowtable rule-id *id* top *n* sort-by pktsShows the top *n* number of packet flows matched by rule-id sorted by packet numbers.**Synopsis**show flowtable rule-id *id* top *n* sort-by pkts**CLI Mode**

Basic

show flowtable top *n*Shows top *n* number of packet flows.**Synopsis**show flowtable top *n***CLI Mode**

Basic

show flowtable top *n* sort-by bytesShows top *n* number of packet flows sorted by byte numbers.**Synopsis**show flowtable top *n* sort-by bytes**CLI Mode**

Basic

show flowtable top *n* sort-by pktsShows top *n* number of packet flows sorted by packet numbers.

Synopsis

```
show flowtable top n sort-by pkts
```

CLI Mode

Basic

show flowtimeouts

Shows connection tracking inactivity timeouts.

Synopsis

```
show flowtimeouts
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show flowtimeouts
nf_contrack_tcp_timeout_syn_sent = 30
nf_contrack_tcp_timeout_syn_rcv = 30
nf_contrack_tcp_timeout_established = 3600
nf_contrack_tcp_timeout_fin_wait = 20
nf_contrack_tcp_timeout_close_wait = 60
nf_contrack_tcp_timeout_last_ack = 30
nf_contrack_tcp_timeout_time_wait = 20
nf_contrack_tcp_timeout_close = 10
nf_contrack_udp_timeout = 30
nf_contrack_udp_timeout_stream = 30
nf_contrack_icmp_timeout = 10
nf_contrack_icmpv6_timeout = 30
nf_contrack_generic_timeout = 120
```

show hostname

Shows the current hostname for an NSX Edge.

Synopsis

```
show hostname
```

CLI Mode

Basic

Example

```
NSX-edge-1-0# show hostname
NSX-edge-1-0
```

show interface

Shows interface information for all interfaces, or a specific interface.

Synopsis

```
show interface [intName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show interface
```

```

Interface VDR is up, line protocol is up
  index 2 metric 1 mtu 1500 <UP,BROADCAST,RUNNING,NOARP>
  HWaddr: c2:9d:ca:29:ff:1b
  inet6 fe80::c09d:caff:fe29:ff1b/64
  proxy_arp: disabled
  Auto-duplex (Full), Auto-speed (3239Mb/s)
    input packets 0, bytes 0, dropped 0, multicast packets 0
    input errors 0, length 0, overrun 0, CRC 0, frame 0, fifo 0, missed 0
    output packets 0, bytes 0, dropped 0
    output errors 0, aborted 0, carrier 0, fifo 0, heartbeat 0, window 0
    collisions 0
Interface br-sub is up, line protocol is up
  index 13 metric 1 mtu 1500 <UP,BROADCAST,RUNNING,MULTICAST>
  inet6 fe80::90b8:2fff:fe4e:5fd3/64
  proxy_arp: disabled
  Auto-duplex (Full), Auto-speed (3239Mb/s)
    input packets 0, bytes 0, dropped 0, multicast packets 0
    input errors 0, length 0, overrun 0, CRC 0, frame 0, fifo 0, missed 0
    output packets 2326, bytes 200100, dropped 0
    output errors 0, aborted 0, carrier 0, fifo 0, heartbeat 0, window 0
    collisions 0
Interface lo is up, line protocol is up
  index 1 metric 1 mtu 16436 <UP,LOOPBACK,RUNNING>
  inet 127.0.0.1/8
  inet6 ::1/128
  proxy_arp: disabled
  Auto-duplex (Full), Auto-speed (3239Mb/s)
    input packets 168, bytes 37172, dropped 0, multicast packets 0
    input errors 0, length 0, overrun 0, CRC 0, frame 0, fifo 0, missed 0
    output packets 168, bytes 37172, dropped 0
    output errors 0, aborted 0, carrier 0, fifo 0, heartbeat 0, window 0
    collisions 0
Interface vNic_0 is up, line protocol is up
  index 3 metric 1 mtu 1500 <UP,BROADCAST,RUNNING,MULTICAST>
  HWaddr: 00:50:56:8e:45:15
  inet6 fe80::250:56ff:fe8e:4515/64
  inet 192.168.100.3/24
  proxy_arp: disabled
  Auto-duplex (Full), Auto-speed (3239Mb/s)
    input packets 14860, bytes 986822, dropped 0, multicast packets 0
    input errors 0, length 0, overrun 0, CRC 0, frame 0, fifo 0, missed 0
    output packets 2707, bytes 346233, dropped 0
    output errors 0, aborted 0, carrier 0, fifo 0, heartbeat 0, window 0
    collisions 0
.
.
.

```

or

```

NSX-edge-1-0> show interface vNic_0
Interface vNic_0 is up, line protocol is up
  index 3 metric 1 mtu 1500 <UP,BROADCAST,RUNNING,MULTICAST>
  HWaddr: 00:50:56:8e:95:20
  inet6 fe80::250:56ff:fe8e:9520/64
  inet 192.168.100.3/24
  proxy_arp: disabled
  Auto-duplex (Full), Auto-speed (2174Mb/s)
    input packets 819279, bytes 54577962, dropped 595, multicast packets 30
    input errors 0, length 0, overrun 0, CRC 0, frame 0, fifo 0, missed 0
    output packets 674153, bytes 57609401, dropped 0
    output errors 0, aborted 0, carrier 0, fifo 0, heartbeat 0, window 0
    collisions 0

```

show ip bgp

Shows entries in the Border Gateway Protocol (BGP) routing table.

Synopsis

```
show ip bgp
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip bgp
```

Status codes: s - suppressed, d - damped, > - best, i - internal
Origin codes: i - IGP, e - EGP, ? - incomplete

Network	Next Hop	Metric	LocPrf	Weight	AS Path
> 0.0.0.0/0	192.168.100.2	0	100	32768	?
> 172.16.100.0/24	192.168.100.3	0	100	60	160 ?
> 192.168.10.0/29	192.168.100.3	0	100	60	160 ?
192.168.100.0/24	192.168.100.3	0	100	60	160 ?
> 192.168.100.0/24	192.168.100.3	0	100	32768	?

show ip bgp neighbors

Shows BGP neighbors. Optionally show neighbor information for only the IP address specified.

Synopsis

```
show ip bgp neighbors [ipAddress]
```

CLI Mode

Basic

Example

```

BGP neighbor is 20.20.20.1, remote AS 200,
BGP state = Established, up
Hold time is 180, Keep alive interval is 60 seconds
Neighbor capabilities:
  Route refresh: advertised and received
  Address family IPv4 Unicast:advertised and received
  Graceful restart Capability:advertised and received
  Restart remain time: 0
Received 3034 messages, Sent 3033 messages
Default minimum time between advertisement runs is 30 seconds
For Address family IPv4 Unicast:advertised and received
  Index 1 Identifier 0x9ac9f52c
  Route refresh request:received 0 sent 0
  Prefixes received 1 sent 3 advertised 3
Connections established 2, dropped 57
Local host: 20.20.20.113, Local port: 43886
Remote host: 20.20.20.1, Remote port: 179
BGP neighbor is 70.70.70.1, remote AS 200,
BGP state = Established, up
Hold time is 180, Keep alive interval is 60 seconds
Neighbor capabilities:
  Route refresh: advertised and received
  Address family IPv4 Unicast:advertised and received
  Graceful restart Capability:advertised and received
  Restart remain time: 0
Received 3085 messages, Sent 3075 messages
Default minimum time between advertisement runs is 30 seconds
For Address family IPv4 Unicast:advertised and received
  Index 2 Identifier 0x9ac9f52c

```

```

Route refresh request:received 0 sent 0
Prefixes received 1 sent 3 advertised 3
Connections established 1, dropped 9
Local host: 70.70.70.113, Local port: 179
Remote host: 70.70.70.1, Remote port: 26563

```

show ip forwarding

Shows forwarding table entries. Optionally show forwarding table entries for the specified prefix only.

Synopsis

```
show ip forwarding [ipAddress/netmask]
```

CLI Mode

Basic

Example

```

Codes: C - connected, R - remote,
       > - selected route, * - FIB route

```

```

R>* 0.0.0.0/0 via 10.24.31.253, vNic_3
C>* 10.24.28.0/22 is directly connected, vNic_3
C>* 20.20.20.0/24 is directly connected, vNic_2
C>* 50.50.50.0/24 is directly connected, vNic_0
R>* 60.60.60.0/24 via 50.50.50.3, vNic_0
C>* 70.70.70.0/24 is directly connected, vNic_1
R>* 80.80.80.0/24 via 70.70.70.1, vNic_2
R>* 90.90.90.0/24 via 50.50.50.3, vNic_0

```

show ip ospf

Shows information about Open Shortest Path First (OSPF) routing process.

Synopsis

```
show ip ospf
```

CLI Mode

Basic

Example

```

OSPF routing process with Router ID 50.50.50.113
Supports opaque LSA
SPF schedule delay: 5 secs, Hold time between two SPFs: 10 secs
Minimum LSA interval: 5 secs, Minimum LSA arrival: 1 secs
Number of external LSA: 4, Checksum Sum: 0X119C0
Number of opaque AS LSA: 0, Checksum Sum: 0
Area BACKBONE(0)
  SPF algorithm executed 292 times
  Number of area border routers reachable within area: 0
  Number of LSA: 9, Checksum Sum: 0X32360
  Number of router LSA: 3, Checksum Sum: 0XE766
  Number of network LSA: 1, Checksum Sum: 0X5808
  Number of summary network LSA: 0, Checksum Sum: 0
  Number of summary ASB LSA: 0, Checksum Sum: 0
  Number of external NSSA LSA: 0, Checksum Sum: 0
  Number of opaque LSA: 5, Checksum Sum: 0X1E3F2
Area 0.0.0.51
  It is a NSSA area
  SPF algorithm executed 292 times
  Number of area border routers reachable within area: 0
  Number of LSA: 3, Checksum Sum: 0X203EE
  Number of router LSA: 0, Checksum Sum: 0

```

Number of network LSA: 0, Checksum Sum: 0
 Number of summary network LSA: 0, Checksum Sum: 0
 Number of summary ASB LSA: 0, Checksum Sum: 0
 Number of external NSSA LSA: 1, Checksum Sum: 0X8BF5
 Number of opaque LSA: 2, Checksum Sum: 0X177F9

show ip ospf database

Shows IPv4 OSPF database.

Synopsis

show ip ospf database

CLI Mode

Basic

Example

NSX-edge-1-0> show ip ospf database

```

                                Opaque Area Link States (Area 0.0.0.0)

Link ID      ADV Router      Age      Seq Num      Checksum
1.0.0.1      192.168.100.3   668      0x8000003c   0x0000ea87

                                Router Link States (Area 0.0.0.1)

Link ID      ADV Router      Age      Seq Num      Checksum
192.168.11.9 192.168.11.9    610      0x8000003a   0x00009098
192.168.100.3 192.168.100.3   609      0x8000003c   0x00002663

                                Network Link States (Area 0.0.0.1)

Link ID      ADV Router      Age      Seq Num      Checksum
192.168.11.1 192.168.100.3   614      0x80000039   0x0000603c

                                Opaque Area Link States (Area 0.0.0.1)

Link ID      ADV Router      Age      Seq Num      Checksum
1.0.0.1      192.168.11.9    621      0x80000039   0x0000c02d
1.0.0.1      192.168.100.3   263      0x8000003c   0x0000ea87

                                AS External Link States

Link ID      ADV Router      Age      Seq Num      Checksum
0.0.0.0      192.168.100.3   263      0x8000003c   0x00008f37
172.16.10.0  192.168.11.9    616      0x80000039   0x000037a0
172.16.20.0  192.168.11.9    616      0x80000039   0x0000c805
172.16.30.0  192.168.11.9    616      0x80000039   0x00005a69

```

show ip ospf database adv-router

Shows OSPF results filtered by advertising router.

Synopsis

show ip ospf database adv-router

CLI Mode

Basic

Example

NSX-edge-1-0> show ip ospf database adv-router 192.168.100.3

Opaque Area Link States (Area 0.0.0.0)

Link ID	ADV Router	Age	Seq Num	Checksum
1.0.0.1	192.168.100.3	711	0x8000003c	0x0000ea87

Router Link States (Area 0.0.0.1)

Link ID	ADV Router	Age	Seq Num	Checksum
192.168.100.3	192.168.100.3	652	0x8000003c	0x00002663

Network Link States (Area 0.0.0.1)

Link ID	ADV Router	Age	Seq Num	Checksum
192.168.11.1	192.168.100.3	657	0x80000039	0x0000603c

Opaque Area Link States (Area 0.0.0.1)

Link ID	ADV Router	Age	Seq Num	Checksum
1.0.0.1	192.168.100.3	306	0x8000003c	0x0000ea87

AS External Link States

Link ID	ADV Router	Age	Seq Num	Checksum
0.0.0.0	192.168.100.3	306	0x8000003c	0x00008f37

show ip ospf database asbr-summary

Shows asbr-summary (type 4) LSAs.

Synopsis

```
show ip ospf database asbr-summary
```

CLI Mode

Basic

show ip ospf database external

Shows external (type 5) LSAs.

Synopsis

```
show ip ospf database external
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf database external
```

AS External Link States

Link ID	ADV Router	Age	Seq Num	Checksum
0.0.0.0	192.168.100.3	445	0x8000003c	0x00008f37
172.16.10.0	192.168.11.9	798	0x80000039	0x000037a0
172.16.20.0	192.168.11.9	798	0x80000039	0x0000c805
172.16.30.0	192.168.11.9	798	0x80000039	0x00005a69

show ip ospf database network

Shows network (type 2) LSAs.

Synopsis

```
show ip ospf database network
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf database network
```

```

                                Network Link States (Area 0.0.0.1)

Link ID          ADV Router      Age           Seq Num        Checksum
192.168.11.1     192.168.100.3   829          0x80000039    0x0000603c
```

show ip ospf database nssa-external

Shows nssa-external (type 7) LSAs.

Synopsis

```
show ip ospf database nssa-external
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf database nssa-external
```

```

                                Network Link States (Area 0.0.0.51)

Link ID          ADV Router      Age           Seq Num        Checksum
172.16.10.0     192.168.11.9   1143         0x800001b1    0x00004519
172.16.20.0     192.168.11.9   1143         0x800001b1    0x0000d67d
172.16.30.0     192.168.11.9   1143         0x800001b1    0x000068e1
```

show ip ospf database opaque-area

Shows opaque-area (type 10) LSAs.

Synopsis

```
show ip ospf database opaque-area
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf database opaque-area
```

```

                                Opaque Area Link States (Area 0.0.0.0)

Link ID          ADV Router      Age           Seq Num        Checksum
1.0.0.1         192.168.100.3   908          0x8000003c    0x0000ea87
```

```

                                Opaque Area Link States (Area 0.0.0.1)

Link ID          ADV Router      Age           Seq Num        Checksum
1.0.0.1         192.168.11.9   861          0x80000039    0x0000c02d
1.0.0.1         192.168.100.3   503          0x8000003c    0x0000ea87
```

show ip ospf database router

Shows router (type 1) LSAs.

Synopsis

```
show ip ospf database router
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf database router
```

```

                                Router Link States (Area 0.0.0.1)

```

Link ID	ADV Router	Age	Seq Num	Checksum
192.168.11.9	192.168.11.9	894	0x8000003a	0x00009098
192.168.100.3	192.168.100.3	893	0x8000003c	0x00002663

show ip ospf database summary

Shows summary (type 3) LSAs.

Synopsis

```
show ip ospf database summary
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf database summary
```

```

                                Router Link States (Area 0.0.0.0)

```

Link ID	ADV Router	Age	Seq Num	Checksum
50.50.50.41	50.50.50.41	841	0x8000006b	0x00001b84
50.50.50.113	50.50.50.113	841	0x80000068	0x00009039
60.60.60.3	60.60.60.3	146	0x8000005b	0x00003ba9

show ip ospf interface

Shows IPv4 OSPF interface.

Synopsis

```
show ip ospf interface
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf interface
```

```
vNic_1 is activated
```

```

Internet Address 192.168.11.1, Network Mask 255.255.255.240, Area 0.0.0.1
Transmit Delay is 1 sec, Network Type BROADCAST, State DR, Priority 128
Designated Router's Interface Address 192.168.11.1
Backup Designated Router's Interface Address 192.168.11.10
Timer intervals configured, Hello 1, Dead 4, Retransmit 5

```

show ip ospf neighbor

Shows information about OSPF neighbors.

Synopsis

```
show ip ospf neighbor
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf neighbor
Neighbor ID      Priority  Address          Dead Time  State          Interface
192.168.10.2     128     192.168.10.3    37         Full/DR       vNic_1
```

show ip ospf statistics

Shows IPv4 OSPF statistics.

Synopsis

```
show ip ospf statistics
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip ospf statistics
Area 0.0.0.0:  SPF algorithm executed 60 times
Area 0.0.0.1:  SPF algorithm executed 59 times
```

show ip route

Shows all routes in the routing information base (RiB), or a specific route. The numbers in square brackets in the command output are the administrative distance and the routing metric. For example, the route below for 172.16.10.0/24 has an administrative distance of 110, and a routing metric of 1.

Synopsis

```
show ip route [ipAddress/netmask]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip route
```

```
Codes: 0 - OSPF derived, i - IS-IS derived, B - BGP derived,
C - connected, S - static, L1 - IS-IS level-1, L2 - IS-IS level-2,
IA - OSPF inter area, E1 - OSPF external type 1, E2 - OSPF external type 2,
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

Total number of routes: 6

```
B      0.0.0.0/0          [20/0]      via 192.168.100.2
O E2  172.16.10.0/24   [110/1]     via 192.168.11.9
O E2  172.16.20.0/24  [110/1]     via 192.168.11.9
O E2  172.16.30.0/24  [110/1]     via 192.168.11.9
C      192.168.11.0/28 [0/0]       via 192.168.11.1
C      192.168.100.0/24 [0/0]       via 192.168.100.3
```

or

```
NSX-edge-1-0> show ip route 192.168.110.10
```

```
Codes: 0 - OSPF derived, i - IS-IS derived, B - BGP derived,
C - connected, S - static, L1 - IS-IS level-1, L2 - IS-IS level-2,
IA - OSPF inter area, E1 - OSPF external type 1, E2 - OSPF external type 2,
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
S      0.0.0.0/0          [0/0]          via 192.168.100.2
```

show ip route bgp

Shows routes in routing information base (RiB) learned through the BGP protocol.

Synopsis

```
show ip route bgp
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ip route bgp
```

```
Codes: 0 - OSPF derived, i - IS-IS derived, B - BGP derived,
C - connected, S - static, L1 - IS-IS level-1, L2 - IS-IS level-2,
IA - OSPF inter area, E1 - OSPF external type 1, E2 - OSPF external type 2,
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
B      0.0.0.0/0          [20/0]         via 192.168.100.2
```

show ip route ospf

Shows routes in routing information base (RiB) learned through OSPF protocol.

Synopsis

```
show ip route ospf
```

CLI Mode

Basic

Example

```
Codes: 0 - OSPF derived, i - IS-IS derived, B - BGP derived,
C - connected, S - static, L1 - IS-IS level-1, L2 - IS-IS level-2,
IA - OSPF inter area, E1 - OSPF external type 1, E2 - OSPF external type 2
0 E2 60.60.60.0/24      [110/1]       via 50.50.50.3
0 E2 90.90.90.0/24      [110/1]       via 50.50.50.3
```

show ipset

Shows IP set information

Synopsis

```
show ipset
```

CLI Mode

Basic

Example

```

NSX-edge-1-0> show ipset
Name: 0_131075-ov-v4-1
Type: hash:oservice (Match un-translated Ports)
Revision: 2
Header: hashsize 64 maxelem 65536
Size in memory: 2224
References: 0
Members:
Proto=89, DestPort=Any, SrcPort=Any    (encoded: 0.89.0.0/16,0.89.0.0/16)

Name: 0_131075-ov-v6-1
Type: hash:oservice (Match un-translated Ports)
Revision: 2
Header: hashsize 64 maxelem 65536
Size in memory: 2224
References: 0
Members:
Proto=89, DestPort=Any, SrcPort=Any    (encoded: 0.89.0.0/16,0.89.0.0/16)

Name: 1_131076-os-v4-1
Type: hash:onet (Match un-translated IP addresses)
Revision: 2
Header: family inet hashsize 64 maxelem 65536
Size in memory: 1432
References: 0
Members:
169.254.1.0/30

Name: 1_131076-od-v4-1
Type: hash:onet (Match un-translated IP addresses)
Revision: 2
Header: family inet hashsize 64 maxelem 65536
Size in memory: 1464
References: 0
Members:
169.254.1.0/30
224.0.0.81

```

show ipv6 forwarding

Shows IPv6 forwarding information

Synopsis

```
show ipv6 forwarding
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show ipv6 forwarding
```

```

IPv6 Routing Table
Codes: C - connected, L - local, S - static

L   fe80::/64
    via ::, VDR
L   fe80::/64
    via ::, vNic_0
L   fe80::/64
    via ::, br-sub
L   fe80::/64
    via ::, vNic_1
L   ff00::/8

```

```

    via ::, VDR
L   ff00::/8
    via ::, vNic_0
L   ff00::/8
    via ::, br-sub
L   ff00::/8
    via ::, vNic_1

```

show log

Shows the system log.

Synopsis

```
show log [follow | reverse]
```

Option	Description
follow	Update the displayed log.
reverse	Show the log in reverse chronological order.

CLI Mode

Basic

Example

```

NSX-edge-1-0# show log
2015-01-24T05:33:49+00:00 vShieldEdge kernel: Initializing cgroup subsys cpuset
2015-01-24T05:33:49+00:00 vShieldEdge kernel: Initializing cgroup subsys cpu
2015-01-24T05:33:49+00:00 vShieldEdge kernel: Linux version 3.2.31
    (root@build-vm-dhcp221.eng.vmware.com) (gcc version 4.5.3 (GCC) ) #1 SMP Wed Nov
    26 00:51:39 GMT 2014
2015-01-24T05:33:49+00:00 vShieldEdge kernel: Command line: BOOT_IMAGE=/boot/vmlinuz loglevel=3
    root=/dev/sda1
2015-01-24T05:33:49+00:00 vShieldEdge kernel: Disabled fast string operations
2015-01-24T05:33:49+00:00 vShieldEdge kernel: BIOS-provided physical RAM map:
.
.
.

```

show log routing

Show the routing log.

Synopsis

```
show log routing [follow | reverse]
```

Option	Description
follow	Update the displayed log.
reverse	Show the log in reverse chronological order.

CLI Mode

Basic

Example

```

NSX-edge-1-0> show log routing
**** AUDIT      0x2901 - 7   (0001) **** -:----- F:00000002
ambsmmpi.c 174 :at 18:05:07, 14 August 2015 (100 ms)
SCM initialized successfully.

**** AUDIT      0x1601 - 72  (0000) **** -:----- F:00000002

```

```

asemain.c 1007 :at 18:05:07, 14 August 2015 (100 ms)
Primary System Manager instance started.
Location index          = 1

**** AUDIT      0x5701 - 1   (0000) **** -:----- F:00000002
cssmain.c 141 :at 18:05:07, 14 August 2015 (110 ms)
The CSS component has been initialized successfully.
Process ID           = 0X01103000
Interface index      = 1

```

show messagebus

Shows the message bus forwarder counters or message counters.

Synopsis

```
show messagebus (forwarder | messages)
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show messagebus forwarder
```

```

-----
Forwarder Command Channel
vmci_conn          : up
app_client_conn    : up
vmci_rx            : 593
vmci_tx            : 591
vmci_rx_err        : 0
vmci_tx_err        : 0
vmci_closed_by_peer: 0
vmci_tx_no_socket  : 0
app_rx             : 591
app_tx             : 593
app_rx_err         : 0
app_tx_err         : 0
app_conn_req       : 1
app_closed_by_peer : 0
app_tx_no_socket   : 0
-----
Forwarder Event Channel
vmci_conn          : up
app_client_conn    : up
vmci_rx            : 179
vmci_tx            : 1739
vmci_rx_err        : 0
vmci_tx_err        : 0
vmci_closed_by_peer: 0
vmci_tx_no_socket  : 0
app_rx             : 1739
app_tx             : 179
app_rx_err         : 0
app_tx_err         : 0
app_conn_req       : 1
app_closed_by_peer : 0
app_tx_no_socket   : 0
-----
cli_rx             : 2
cli_tx             : 2
cli_tx_err         : 0
counters_reset     : 0

```

or

```
NSX-edge-1-0> show messagebus messages
```

```
-----
```

```

Message bus is enabled
cmd conn state : listening
init_req      : 1
init_resp     : 1
init_req_err  : 0
init_resp_err : 0
pwchg_req     : 0
pwchg_resp    : 0
pwchg_resp_ok : 0
pwchg_resp_fail: 0
pwchg_updated : 0
pwchg_req_err : 0
pwchg_resp_err : 0
pwchg_resp_miss: 0
cert_change   : 0
cmd_req       : 0
cmd_resp      : 0
cmd_invalid   : 0
cmd_req_err   : 0
cmd_req_abort : 0
cmd_resp_err  : 0
em_req        : 0
em_resp       : 0
em_req_err    : 0
em_resp_invalid: 0
em_resp_timeout: 0
em_resp_err   : 0
hb            : 573
hb_rx_err     : 0
hb_ack_err    : 0
cmd_ch_conn   : 1
cmd_login_fail : 0
msg_thr_rstart : 0
-----
evt conn state : listening
vse_rx        : 1721
vse_rx_hc     : 1720
vse_rx_evt    : 1
vse_rx_msg    : 171
vse_rx_hc_empty: 0
vse_rx_err    : 0
vse_tx_hc     : 1720
vse_tx_evt    : 1
vse_tx_hc_err : 0
vse_tx_evt_err : 0
evt_rsp       : 1
evt_rsp_no_file: 0
evt_rsp_more  : 0
evt_rsp_push  : 0
evt_ch_conn   : 1
evt_login_fail : 0
vse_thr_rstart : 0
-----
cli_rx        : 2
cli_tx        : 2
cli_tx_err    : 0
cli_thr_rstart : 0
counters_reset : 0

```

show nat

Displays NAT packet counters along with the NAT rules that specify how to translate network addresses for a packet that matches.

Synopsis

```
show nat
```

CLI Mode

Basic

show netdevice

Show network device settings.

Synopsisshow netdevice [*deviceName*]**CLI Mode**

Basic

Example

```

NSX-edge-1-0> show netdevice vNic_0
Settings for vNic_0:
  Supported ports: [ TP ]
  Supported link modes: 1000baseT/Full
                      10000baseT/Full
  Supported pause frame use: No
  Supports auto-negotiation: No
  Advertised link modes: Not reported
  Advertised pause frame use: No
  Advertised auto-negotiation: No
  Speed: 10000Mb/s
  Duplex: Full
  Port: Twisted Pair
  PHYAD: 0
  Transceiver: internal
  Auto-negotiation: off
  MDI-X: Unknown
  Supports Wake-on: uag
  Wake-on: d
  Link detected: yes

```

show process

Shows information related to NSX Edge processes.

Synopsis

show process (list | monitor)

Option	Description
list	List all currently running processes on the NSX Edge.
monitor	Continuously monitor the list of processes.

CLI Mode

Basic

Example

```

NSX-edge-1-0# show process list
%CPU %MEM  VSZ  RSZ  STAT  STARTED      TIME  COMMAND
0.0  0.1   3956  692  Ss    May 05 00:00:02  init [3]
0.0  0.0     0    0  S    May 05 00:00:00  [kthreadd]
0.0  0.0     0    0  S    May 05 00:00:00  [ksoftirqd/0]
0.0  0.0     0    0  S    May 05 00:00:00  [kworker/u:0]
0.0  0.0     0    0  S    May 05 00:00:00  [migration/0]
0.0  0.0     0    0  S<   May 05 00:00:00  [cpuset]
0.0  0.0     0    0  S<   May 05 00:00:00  [khelper]

```

```
0.0 0.0      0      0 5<      May 05 00:00:00 [netns]
.
.
.
```

show rpfilter

Shows the reverse path filter settings.

Reverse Path Filter Setting	Description
0	Disable - no reverse path confirmation will be performed
1	Strict - confirms the source address is reachable via the same interface from which the packet arrived.
2	Loose - confirms the source address is reachable via any interface.

Synopsis

```
show rpfilter
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show rpfilter
net.ipv4.conf.all.rp_filter = 1
net.ipv4.conf.default.rp_filter = 0
net.ipv4.conf.lo.rp_filter = 0
net.ipv4.conf.VDR.rp_filter = 0
net.ipv4.conf.vNic_0.rp_filter = 1
net.ipv4.conf.vNic_1.rp_filter = 1
net.ipv4.conf.vNic_2.rp_filter = 1
net.ipv4.conf.vNic_3.rp_filter = 1
net.ipv4.conf.vNic_4.rp_filter = 1
net.ipv4.conf.vNic_5.rp_filter = 1
net.ipv4.conf.vNic_6.rp_filter = 1
net.ipv4.conf.vNic_7.rp_filter = 1
net.ipv4.conf.vNic_8.rp_filter = 1
net.ipv4.conf.vNic_9.rp_filter = 1
net.ipv4.conf.br-sub.rp_filter = 0
```

show rpfstats

Shows the reverse path filter statistics.

Synopsis

```
show rpfstats
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show rpfstats
RPF drop packet count: 13301
```

show service all

Show the status of all services.

Synopsis

```
show service all
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show service all
Service      Admin Status
-----      -
FIREWALL     Enabled
SNAT         Enabled
DNAT         Enabled
LB           Enabled
IPSEC        Disabled
DNS-RELAY    Disabled
SSLVPN       Disabled
L2VPN        Disabled
GSLB         Disabled
DHCP         Disabled
ECMP         Disabled
OSPF         Enabled
BGP          Disabled
ISIS         Disabled
ARP-FLTR     Disabled
SYSLOG       Disabled
HA           Enabled
SSH          Enabled
```

show service dhcp

Shows whether the DHCP service is running, and shows lease information with the `leaseinfo` argument.

Synopsis

```
show service dhcp [leaseinfo]
```

CLI Mode

Basic

show service dns

Shows whether the DNS service is running.

Synopsis

```
show service dns
```

CLI Mode

Basic

show service highavailability

Shows high availability (HA) service information such as HA status and Healthcheck status, etc.

Synopsis

```
show service highavailability
```

CLI Mode

Basic

Example

```

NSX-edge-2-0> show service highavailability
Highavailability Status:          running
Highavailability Unit Name:      nsx-edge-2-0
Highavailability Unit State:     active
Highavailability Interface(s):   vNic_1
Unit Poll Policy:
  Frequency:                      3      seconds
  Deadtime:                       15     seconds
  Stateful Sync-up Time:          10     seconds
Highavailability Healthcheck Status:
  Peer host [nsx-edge-2-1        ]: good
  This host [nsx-edge-2-0        ]: good
Highavailability Stateful Logical Status:
  File-Sync                       running
  Connection-Sync                  running
    xmit      xerr      rcv      rerr
    73176     0         71392    0

```

show service highavailability connection-sync

Shows HA connection sync-up status information. For example, statistics about current active connections of both local and peer device.

Synopsis

```
show service highavailability connection-sync
```

CLI Mode

Basic

Example

```

NSX-edge-2-0> show service highavailability connection-sync
connections local:
current active connections:          0
connections created:                 0   failed:          0
connections updated:                 0   failed:          0
connections destroyed:               0   failed:          0

connections peer:
current active connections:          0
connections created:                 0   failed:          0
connections updated:                 0   failed:          0
connections destroyed:               0   failed:          0

traffic processed:
          0 Bytes          0 Pckts

UDP traffic (active device=vNic_1):
          74080 Bytes sent          72264 Bytes rcv
           4676 Pckts sent          4673 Pckts rcv
           0 Error send             0 Error rcv

message tracking:
          0 Malformed msgs          9 Lost msgs

```

show service highavailability internal

Show high availability internal status information.

Synopsis**CLI Mode**

Basic

Example

```

NSX-edge-1-0> show service highavailability internal
Highavailability Internal Status:
Last updated: Mon Aug 17 00:28:50 2015
Current DC: nsx-edge-1-1 (1d263b8a-ff14-f737-a14e-67171e3c2293)
Version: 1.0.9-da7075976b5ff0bee71074385f8fd02f296ec8a3
2 Nodes configured.
1 Resources configured.
Online: [ nsx-edge-1-0 nsx-edge-1-1 ]
vsecluster      (heartbeat:vseha):      Started nsx-edge-1-0

```

show service highavailability link

Shows HA link information such as IP addresses for peer links and local links.

Synopsis

```
show service highavailability link
```

CLI Mode

Basic

Example

```

NSX-edge-2-0> show service highavailability link
Local IP Address: 169.254.1.1/30
Peer IP Address: 169.254.1.2/30

```

show service ipsec

Shows the VPN service details. For an explanation of the various sub-modes of this command, see the sections that follow this one.

Synopsis

```
show service ipsec (cacerts | certs | crls | pubkeys | sa | sp)
```

Option	Description
cacerts	Show the CA certificates.
certs	Show the Edge certificates
crls	Show the CRLs revoke certificates.
pubkeys	Show the public keys.
sa	Show the Security Association Database (SAD) entry.
site	Show the site information.
sp	Show the Security Policy Database (SPD) entry.

CLI Mode

Basic

Example

```
NSX-edge-1-0# show service ipsec status
```

show service ipsec cacerts

Shows IPSEC CA certificates.

Synopsis

```
show service ipsec cacerts
```

CLI Mode

Privileged, Configuration, and Interface Configuration

show service ipsec certs

Shows IPSEC certificates.

Synopsis

```
show service ipsec certs
```

CLI Mode

Basic

show service ipsec crls

Shows Certificate Revocation Lists (CRL).

Synopsis

```
show service ipsec crls
```

CLI Mode

Basic

show service ipsec pubkeys

Shows all installed public keys that are either received from peers or loaded locally.

Synopsis

```
show service ipsec pubkeys
```

CLI Mode

Basic

show service ipsec sa

Shows the security association database, which contains a set of security information that describes a particular kind of secure connection between one device and another.

Synopsis

```
show service ipsec sa
```

CLI Mode

Basic

show service ipsec site

Shows the IPSec site information.

Synopsis

```
show service ipsec site
```

CLI Mode

Basic

show service ipsec stats

[Displays IPSec statistics information.](#)

Synopsis

```
show service ipsec stats
```

CLI Mode

Basic

show service ipsec sp

Shows the security policy database, which contains a set of rules that are programmed into the IPSec implementation that tells it how to process different packets received by the device.

Synopsis

```
show service ipsec sp
```

CLI Mode

Basic

show service l2vpn (on client)

Shows the L2 VPN client status.

Synopsis

```
show service l2vpn
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show service l2vpn
L2 VPN is running
```

```
-----
L2 VPN type: Client
Tunnel status: up
Total bytes sent: 582
Total bytes received: 408
```

show service l2vpn (on server)

Shows the L2 VPN server status and tunnel information along with the encryption algorithm that is being used in the communication.

Synopsis

```
show service l2vpn
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show service l2vpn
L2 VPN is running
-----
L2 VPN type: Server
Tunnel information: 1 ABC na 1 1402561453 AES128-SHA
```

show service l2vpn bridge

Shows the L2 VPN bridge configuration. You can run this command on both the client and the server.

Synopsis

```
show service l2vpn bridge
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show service l2vpn bridge

bridge name      bridge id          STP enabled      interfaces
br-sub           8000.005056b86b46 no                vnic1
                                                         na1
```

List of learned MAC addresses for L2 VPN bridge br-sub

```
-----
port no          mac addr          is local?        vlan id          ageing timer
1                00:50:56:b8:6b:46 yes                0                );00
2                c2:2b:0e:8b:b3:ba yes                0                0:00
```

show service l2vpn conversion table

Lists the tunnel ID to which the network is mapped. Also indicates whether the network is VLAN or VXLAN.

Synopsis

```
show service l2vpn trunk-table
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show service l2vpn trunk-table

TunnelId        VLAN/VNI          Type
10              100               VLAN
```

show service l2vpn trunk-table

Lists the interfaces of the Edge and shows the trunk interfaces. You can run this command on both the client and the server.

Synopsis

```
show service l2vpn trunk-table
```

CLI Mode

Basic, Privileged

Example

NSX-edge-1-0> show service l2vpn trunk-table

ifindex	iface	trunk flag
01	lo	0
02	VDR	0
03	vNIC_0	0
04	vNIC_4	0
...
...
06	vNIC_1	1

show service loadbalancer

Shows overall current loadbalancer engine state.

Synopsis

show service loadbalancer

CLI Mode

Basic

show service loadbalancer error

Shows recent loadbalancer errors.

Synopsis

show service loadbalancer error

CLI Mode

Basic

show service loadbalancer monitor

Shows health of specified monitor.

Synopsisshow service loadbalancer monitor [*monitorName*]**CLI Mode**

Basic

Example

NSX-edge-1-0> show service loadbalancer monitor

Loadbalancer HealthMonitor Statistics:

POOL	MEMBER	HEALTH STATUS
http-pool	http-Server	default_http_monitor:CRITICAL

show service loadbalancer pool

Shows pool member state.

Synopsis

```
show service loadbalancer pool [poolName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show service loadbalancer pool
-----
Loadbalancer Pool Statistics:

POOL http-pool
| LB METHOD round-robin
| LB PROTOCOL L7
| Transparent disabled
| SESSION (cur, max, limit, total) = (0, 0, 1, 0)
| BYTES in = (0), out = (0)
+->POOL MEMBER: http-pool/http-Server, STATUS: DOWN
| | STATUS = DOWN, MONITOR STATUS = default_http_monitor:CRITICAL
| | SESSION (cur, max, limit, total) = (0, 0, , 0)
| | BYTES in = (0), out = (0)
```

show service loadbalancer session

Shows concurrent sessions for both L4 and L7 load balancer engines.

Synopsis

```
show service loadbalancer session [14 | 17]
```

CLI Mode

Basic

show service loadbalancer table

Shows session persistence table entries.

Synopsis

```
show service loadbalancer table [tableName]
```

CLI Mode

Basic

show service loadbalancer virtual

Shows virtual server details.

Synopsis

```
show service loadbalancer virtual [serverName]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show service loadbalancer virtual
```

```
-----
Loadbalancer VirtualServer Statistics:
```

```
VIRTUAL VSIP
| ADDRESS [10.115.172.18]:80
| SESSION (cur, max, limit, total) = (0, 0, 1024, 0)
| RATE (cur, max, limit) = (0, 0, 0)
| BYTES in = (0), out = (0)
```

show service monitor

Shows the running status of the health monitor service.

Synopsis

```
show service monitor
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show service monitor
Network Monitor Service Status:
Network Monitor : running
PID : 18578
Total Services : 7
Monitored Services Status:
Services in OK/WARNING/UNKNOWN/CRITICAL : 1 / 0 / 0 / 6
Services Scheduled : 7
Services Checked : 7
Service Checks Last 1/5/15 min : 45 / 45 / 45
Total Service State Change : 0.000 / 0.000 / 0.000 %
```

show service monitor service

Shows the running status of health monitor instances.

Synopsis

```
show service monitor service [monitorName]
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show service monitor service
Network Monitor: Monitored Services Statistics:
MONITOR default_tcp_monitor
| TOTAL SERVICES MONITORED: 5
+-->SERVICE [0]
+-->SERVICE METADATA INFORMATION:
| MONITOR: default_tcp_monitor
| POOL: iis-pool
| MEMBER: m1
| HOST ADDRESS: 10.117.5.62
| CHECK EXECUTION TIME (s): 15.033
| CHECK LATENCY (s): 0.627
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: CRITICAL - Socket timeout after 15 seconds
+-->SERVICE [1]
+-->SERVICE METADATA INFORMATION:
| MONITOR: default_tcp_monitor
| POOL: tcp-pool-shared-14-17
| MEMBER: 192.168.1.100
```

```

| HOST ADDRESS: 192.168.1.100
| CHECK EXECUTION TIME (s): 3.036
| CHECK LATENCY (s): 0.652
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: No route to host
+-->SERVICE [2]
+-->SERVICE METADATA INFORMATION:
| MONITOR: default_tcp_monitor
| POOL: tcp-pool
| MEMBER: m1
| HOST ADDRESS: 192.168.1.100
| CHECK EXECUTION TIME (s): 2.036
| CHECK LATENCY (s): 0.653
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: No route to host
.
.
.

MONITOR HC-WEB
| TOTAL SERVICES MONITORED: 2
+-->SERVICE [0]
+-->SERVICE METADATA INFORMATION:
| MONITOR: HC-WEB
| POOL: http-pool
| MEMBER: m1
| HOST ADDRESS: 192.168.1.100
| CHECK EXECUTION TIME (s): 3.037
| CHECK LATENCY (s): 0.652
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: No route to host
+-->SERVICE [1]
+-->SERVICE METADATA INFORMATION:
| MONITOR: HC-WEB
| POOL: http-pool
| MEMBER: m2
| HOST ADDRESS: 192.168.1.40
| CHECK EXECUTION TIME (s): 0.009
| CHECK LATENCY (s): 0.654
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: HTTP OK: Status line output matched "HTTP/1.1 200 OK" - 329 bytes in 0.002 second
response time

```

show service network-connections

Shows service network connection information. For example, TCP and UDP service information.

Synopsis

```
show service network-connections
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show service network-connections
```

```

-----
vShield Edge Service Network-Connection Status:
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 127.0.0.1:2601         0.0.0.0:*               LISTEN     833/zebra
tcp        0      0 127.0.0.1:10000        0.0.0.0:*               LISTEN     1584/vmciproxy
tcp        0      0 127.0.0.1:10001        0.0.0.0:*               LISTEN     1584/vmciproxy
tcp        0      0 0.0.0.0:179           0.0.0.0:*               LISTEN     863/dcsms
tcp        0      0 0.0.0.0:22            0.0.0.0:*               LISTEN     1553/ssh
tcp        0      0 127.0.0.1:15000        0.0.0.0:*               LISTEN     863/dcsms

```

```

tcp      0      0 127.0.0.1:2812      0.0.0.0:*           LISTEN    895/monit
tcp      0      0 127.0.0.1:18566     127.0.0.1:10000     ESTABLISHED 1586/msgmgr
tcp      0      0 192.168.101.3:22    192.168.110.10:51116 ESTABLISHED 31299/sshd: admin
      [
tcp      0      0 127.0.0.1:36905     127.0.0.1:10001     ESTABLISHED 1586/msgmgr
tcp      0      0 192.168.101.3:50522 192.168.101.2:179   ESTABLISHED 863/dcsms
tcp      0      0 127.0.0.1:10000     127.0.0.1:18566     ESTABLISHED 1584/vmciproxy
tcp      0      0 192.168.10.2:179    192.168.10.6:50726  ESTABLISHED 863/dcsms
tcp      0      0 127.0.0.1:10001     127.0.0.1:36905     ESTABLISHED 1584/vmciproxy
udp      0      0 127.0.0.1:514      0.0.0.0:*           692/syslog-ng

```

Active UNIX domain sockets (servers and established)

Proto	RefCnt	Flags	Type	State	I-Node	PID/Program name	Path
unix	2	[ACC]	STREAM	LISTENING	517	824/fcron	/usr/local/var/run/fcron.fifo
unix	2	[]	DGRAM		7950	1586/msgmgr	/var/run/vmware/vshield/msgmgr/vse_event.sock
unix	2	[ACC]	STREAM	LISTENING	538	833/zebra	/var/run/zserv.api
unix	2	[ACC]	STREAM	LISTENING	545	833/zebra	/var/run/zebra.vty
unix	2	[]	DGRAM		8779	1586/msgmgr	/var/run/vmware/vshield/msgmgr/msgmgr_cli_server
unix	2	[ACC]	STREAM	LISTENING	217	692/syslog-ng	/dev/log
unix	2	[]	DGRAM		630	897/eventmgr	/var/run/vmware/vshield/eventmgr/evmgr_cli_server.sock
unix	2	[]	DGRAM		7875	1584/vmciproxy	/var/run/vmware/vshield/vmciproxy_cli_server
unix	2	[ACC]	STREAM	LISTENING	221	692/syslog-ng	/var/run/syslog-ngctl
unix	2	[]	DGRAM		6630	897/eventmgr	/var/run/vmware/vshield/vse_config.sock
unix	2	[]	DGRAM		7912	1586/msgmgr	
.							
.							
.							

show service sslvpn-plus

Shows SSL VPN-Plus service information.

Synopsis

```
show service sslvpn-plus
```

CLI Mode

Basic

show service sslvpn-plus sessions

Shows SSL VPN-Plus active sessions.

Synopsis

```
show service sslvpn-plus sessions
```

CLI Mode

Basic

show service sslvpn-plus stats

Shows SSL VPN-Plus statistic information.

Synopsis

```
show service sslvpn-plus stats
```

CLI Mode

Basic

show service sslvpn-plus tunnels

Shows SSL VPN-Plus tunnel information.

Synopsis

show service sslvpn-plus tunnels

CLI Mode

Basic

show system cpu

Shows the system CPU details.

Synopsis

show system cpu

CLI Mode

Basic

Example

```

NSX-edge-1-0# show system cpu
processor      : 0
vendor_id    : GenuineIntel
cpu family   : 6
model        : 45
model name   : Intel(R) Xeon(R) CPU E5-2680 0 @ 2.70GHz
stepping     : 7
microcode    : 0x710
cpu MHz      : 2700.000
cache size   : 20480 KB
fpu          : yes
fpu_exception : yes
cpuid level  : 13
wp           : yes
flags        : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush
              dts mmx fxsr sse sse2 ss syscall nx rdtscp lm constant_tsc arch_perfmon pebs bts
              nopl xtopology tsc_reliable nonstop_tsc aperfmperf pni pclmulqdq ssse3 cx16 pcid
              sse4_1 sse4_2 x2apic popcnt aes xsave avx hypervisor lahf_lm ida arat epb pln pts
              dtherm
bogomips     : 5400.00
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management:

processor      : 1
vendor_id    : GenuineIntel
cpu family   : 6
.
.
.

```

Related Commands

show system memory
 show system uptime

show system interrupt

Shows system interrupt and affinity information.

Synopsis

```
show system interrupt [affinity irqID]
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show system interrupt
      CPU0      CPU1
0:      796      0 IO-APIC-edge timer
1:       4      4 IO-APIC-edge i8042
4:      11      0 IO-APIC-edge serial
8:      52      0 IO-APIC-edge rtc0
9:       0      0 IO-APIC-fasteoi acpi
12:     0      114 IO-APIC-edge i8042
17:   54063   30548 IO-APIC-fasteoi ioc0
72:    1475      0 PCI-MSI-edge vmci
73:     0      0 PCI-MSI-edge vmci
74:   47791      2 PCI-MSI-edge vNic_0:v0-Rx
75:     1     3379 PCI-MSI-edge vNic_0:v1-Rx
76:     0      0 PCI-MSI-edge vNic_0:v2-event
83:   44052      0 PCI-MSI-edge vNic_1:v0-Rx
84:     0     3696 PCI-MSI-edge vNic_1:v1-Rx
85:     0      0 PCI-MSI-edge vNic_1:v2-event
NMI:     0      0 Non-maskable interrupts
LOC: 11127499 5490722 Local timer interrupts
SPU:     0      0 Spurious interrupts
PMI:     0      0 Performance monitoring interrupts
IWI:     0      0 IRQ work interrupts
RES:   317633 324946 Rescheduling interrupts
CAL:    395    358 Function call interrupts
TLB: 144492 147028 TLB shutdowns
TRM:     0      0 Thermal event interrupts
THR:     0      0 Threshold APIC interrupts
MCE:     0      0 Machine check exceptions
MCP:    655    655 Machine check polls
ERR:     0
MIS:     0

or

NSX-edge-1-0> show system interrupt affinity 85
3
```

show system memory

Shows the summary of memory utilization.

Synopsis

```
show system memory
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0# show system mem
MemTotal:    2072204 kB
MemFree:     1667248 kB
Buffers:      83120 kB
```

.
.
.

show system network-stats

Shows network statistics. For example, statistics for IP, ICMP, TCP and UDP.

Synopsis

```
show system network-stats
```

CLI Mode

Basic

Example

```
NSX-edge-1-0> show system network-stats
```

```
Ip:
  45198 total packets received
  0 forwarded
  0 incoming packets discarded
  43765 incoming packets delivered
  42232 requests sent out
Icmp:
  23 ICMP messages received
  0 input ICMP message failed.
  ICMP input histogram:
    destination unreachable: 6
    echo requests: 11
    echo replies: 6
  36 ICMP messages sent
  0 ICMP messages failed
  ICMP output histogram:
    destination unreachable: 6
    echo request: 19
    echo replies: 11
IcmpMsg:
  InType0: 6
  InType3: 6
  InType8: 11
  OutType0: 11
  OutType3: 6
  OutType8: 19
Tcp:
  64 active connections openings
  57 passive connection openings
  10 failed connection attempts
  0 connection resets received
  5 connections established
  24342 segments received
  24170 segments send out
  0 segments retransmitted
  0 bad segments received.
  1650 resets sent
Udp:
  0 packets received
  6 packets to unknown port received.
  0 packet receive errors
  6 packets sent
  RcvbufErrors: 0
  SndbufErrors: 0
UdpLite:
  InDatagrams: 0
  NoPorts: 0
  InErrors: 0
  OutDatagrams: 0
  RcvbufErrors: 0
```

SndbufErrors: 0

show system storage

Shows the disk usage details for an NSX Edge.

Synopsis

```
show system storage
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0# show system storage
  show system storage
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda1       372M 327M   27M  93% /
/dev/sda2        47M  5.0M   40M  12% /var/db
/dev/sda3        31M  4.5M   25M  15% /var/dumpfiles
/dev/sda4        34M  7.0M   26M  22% /var/log
```

show system uptime

Shows the length of time the NSX virtual machine has been operational since last reboot.

Synopsis

```
show system uptime
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0# show system uptime
01:58:15 up 1 day, 23:38,  2 users,  load average: 0.00, 0.01, 0.05
```

show tech-support

Shows system information for tech-support. It shows all the information contained in tech-support tarball file.

Synopsis

```
show tech-support
```

CLI Mode

Basic

Related Commands

[export tech-support scp](#)

show version

Shows the software version running on the virtual machine.

Synopsis

```
show version
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0> show version
Name:                vShield Edge
Version:             6.2.0
Build number:       2697212
Kernel:             3.2.62
```

Related Commands

```
show edge edgeID version
```

traceroute

Traces the route from the NSX Edge to a target system.

Synopsis

```
traceroute (hostname | ipAddress)
```

CLI Mode

Basic, Privileged

Example

```
NSX-edge-1-0# traceroute 10.16.67.118
traceroute to 10.16.67.118 (10.16.67.118), 30 hops max, 40 byte packets
 1  10.115.219.253 (10.115.219.253) 128.808 ms  74.876 ms  74.554 ms
 2  10.17.248.51 (10.17.248.51) 0.873 ms  0.934 ms  0.814 ms
 3  10.16.101.150 (10.16.101.150) 0.890 ms  0.913 ms  0.713 ms
 4  10.16.67.118 (10.16.67.118) 1.120 ms  1.054 ms  1.273 ms
```


Standalone NSX Edge Commands

Standalone NSX Edge Overview

A standalone NSX Edge appliance can be deployed as a L2 VPN client in a vCenter that does not use NSX. The L2VPN client connects to an NSX Edge L2VPN server that is part of an NSX installation.

You deploy a standalone edge using an OVF file. After deployment, all configuration changes must be made using the command line interface.

A standalone NSX Edge appliance has the same basic and privileged modes as an NSX Edge that is deployed in an NSX environment. In addition, it has configuration, interface configuration and L2VPN configuration modes.

Log in as the user `admin` to use the standalone NSX Edge commands.

Standalone NSX Edge Commands

ciphers

Add ciphers to the configuration. Available options are 3DES, AES, AES256, GCM, and NULL. List multiple ciphers separated by a colon (:). To remove a cipher, use `no` before the command.

Synopsis

```
[no] ciphers cipherName1[:cipherName2][:...]
```

CLI Mode

L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# ciphers 3DES
```

or

```
nsx-l2vpn-edge(config-l2vpn)# ciphers 3DES:AES
```

or

```
nsx-l2vpn-edge(config-l2vpn)# no ciphers 3DES
```

Related Commands

[show configuration l2vpn](#)

commit

Applies changes made in configuration, interface configuration, or L2VPN mode to the system. Uncommitted changes are persistent across reboots. You can view uncommitted changes with `show configuration uncommitted`.

Synopsis

```
commit
```

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config)# commit
```

Related Commands

`show configuration uncommitted`

configure terminal

Switches to Configuration mode from Privileged mode.

Synopsis

```
configure terminal
```

CLI Mode

Privileged

Example

```
nsx-l2vpn-edge# configure terminal
nsx-l2vpn-edge(config)#
```

Related Commands

`exit`
`quit`
`interface intName`
`l2vpn`
`commit`

dns name-server

Configures DNS servers. To remove a DNS server, use `no` before the command.

Synopsis

```
[no] dns name-server ipAddressPrimary [ipAddressSecondary]
```

CLI Mode

Configuration

Example

```
nsx-l2vpn-edge(config)# dns name-server 192.168.110.10
```

Related Commands

`show configuration global`

egress-optimize

Adds one or more IP addresses to the egress-optimize IP list. To remove an IP address, use no before the command.

Synopsis

```
[no] egress-optimize ipAddress1[:ipAddress2:[...]]
```

CLI Mode

L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# no egress-optimize 192.168.1.1
```

or

```
nsx-l2vpn-edge(config-l2vpn)# egress-optimize 192.168.1.1:192.168.2.1:192.168.3.1
```

Related Commands

[show configuration l2vpn](#)

exit

Exits from the current mode and switches to the previous mode, or exits the CLI session if run from Privileged or Basic mode.

Synopsis

```
exit
```

CLI Mode

Basic, Privileged, Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config)# exit
nsx-l2vpn-edge#
```

or

```
nsx-l2vpn-edge# exit
Connection to 192.168.100.200 closed.
```

Related Commands

[quit](#)
[disable](#)

interface *intName*

Switches to Interface Configuration mode for the specified interface. Changing the configuration of the uplink interface is the only supported option.

Synopsis

```
interface intName
```

CLI Mode

Configuration

Example

```
nsx-l2vpn-edge(config)# interface uplink
nsx-l2vpn-edge(config-if)#
```

Related Commands

`show configuration interface`

ip address

Assigns an IP address to an interface. To remove an IP address from an interface, use `no` before the command.

It is recommended to change the IP address setting from the console only.

Synopsis

`[no] ip address ipAddress/netmask`

CLI Mode

Interface Configuration

Example

```
nsx-12vpn-edge(config-if)# ip address 192.168.100.200/24
```

Related Commands

`show configuration interface`

ip route

Adds a static route.

To delete an IP route, use `no` before the command.

Synopsis

`[no] ip route ipAddress/netmask gatewayIP`

CLI Mode

Configuration

Example

```
nsx-12vpn-edge(config)# ip route 0.0.0.0/0 192.168.100.2
```

Related Commands

`show configuration static-routing`

l2vpn

Switches to L2VPN mode from Configuration mode.

Synopsis

`l2vpn`

CLI Mode

Configuration

Example

```
nsx-12vpn-edge(config)# l2vpn
nsx-12vpn-edge(config-l2vpn)#
```

Related Commands

`commit`
`exit`
`quit`

`show configuration l2vpn`

mtu

Specify MTU for an interface. Valid values are between 60 and 9000.

Synopsis

`mtu intName mtuSize`

CLI Mode

Configuration

Example

```
nsx-l2vpn-edge(config)# mtu uplink 1500
```

Related Commands

`show configuration interface`

no proxy setup

Remove the proxy setup including proxy user setup.

Synopsis

`no proxy setup`

CLI Mode

L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# no proxy setup
```

Related Commands

`show configuration l2vpn`
`proxy address`
`proxy username`

no proxy user

Remove the proxy user configuration.

`no proxy user`

CLI Mode

L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# no proxy user
```

Related Commands

`show configuration l2vpn`
`proxy username`

password

Change the password of the admin, enable, or root user. The password command takes effect immediately without having to commit the change.

Synopsis

```
password userName
```

CLI Mode

Configuration

Example

```
nsx-12vpn-edge(config)# password admin
```

proxy address

Set the proxy IP address and port.

Synopsis

```
proxy address ipAddress portNumber
```

CLI Mode

L2VPN

Example

```
nsx-12vpn-edge(config-l2vpn)# proxy address 10.10.1.1 port 553
```

Related Commands

```
proxy username
no proxy setup
show configuration l2vpn
```

proxy username

Sets the proxy authentication username and password. There can be only one user configured. If you run this command when a user is already configured, the previous user configuration will be overwritten.

Synopsis

```
proxy username userName password password
```

CLI Mode

L2VPN

Example

```
nsx-12vpn-edge(config-l2vpn)# proxy username test password test
```

Related Commands

```
no proxy user
show configuration l2vpn
```

quit

Exits from the current mode and switches to the previous mode, or exits the CLI session if run from Privileged or Basic mode.

Synopsis

```
quit
```

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# quit
nsx-l2vpn-edge(config)#

or

nsx-l2vpn-edge# exit
Connection to 192.168.100.200 closed.
```

Related Commands

[exit](#)

rpfilter

Specify an reverse path filter value for an interface. Specifying `a11` sets all the rpfilter policy for all interfaces. Specifying `default` sets the rpfilter policy for any new interfaces.

Synopsis

```
rpfilter interfaceName policy
```

Policy	Description
0	Disable - no reverse path confirmation will be performed
1	Strict - confirms the source address is reachable via the same interface from which the packet arrived.
2	Loose - confirms the source address is reachable via any interface.

CLI Mode

Configuration

Example

```
nsx-l2vpn-edge(config)# rpfilter uplink 2
```

server *ipAddress* [*port*]

Configure the remote L2VPN server IP address, and optionally port. If no port is specified, the default port of 443 is used.

To delete a remote L2VPN server, use `no` before the command.

Synopsis

```
[no] server ipAddress [port]
```

CLI Mode

L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# server 10.10.10.1 553
```

Related Commands

[show configuration l2vpn](#)

show configuration

Show configuration information. With no arguments, it shows all configuration. You can optionally specify which section of the configuration to view: `certificatestore`, `global`, `interface`, `l2vpn`, `routing-global`, and `static-routing`. Specifying `uncommitted` will show any configuration that has been entered but not yet committed. Uncommitted configuration is persistent across reboots.

Synopsis

```
show configuration [configType]
```

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config-if)# show configuration static-routing
```

```
-----
vShield Edge Static Routing Config:
{
  "staticRouting" : [
    {
      "gatewayAddress" : null,
      "destinationNetwork" : "0.0.0.0/0",
      "interface" : "vNic_0",
      "gatewayAddresses" : [
        "192.168.100.2"
      ],
      "description" : "",
      "mtu" : 1500
    }
  ]
}
```

show log

Show system log file.

Synopsis

```
show log
```

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config)# show log
2015-08-13T21:04:17+00:00 vShieldEdge kernel: Initializing cgroup subsys cpuset
2015-08-13T21:04:17+00:00 vShieldEdge kernel: Initializing cgroup subsys cpu
2015-08-13T21:04:17+00:00 vShieldEdge kernel: Linux version 3.2.62
      (root@sc-d01-255-093.eng.vmware.com) (gcc version 4.5.3 (GCC) ) #1 SMP Fri Jul 17
      23:38:44 GMT 2015
2015-08-13T21:04:17+00:00 vShieldEdge kernel: Command line: BOOT_IMAGE=/boot/vmlinuz loglevel=3
      root=/dev/sda1
2015-08-13T21:04:17+00:00 vShieldEdge kernel: Disabled fast string operations
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-provided physical RAM map:
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 0000000000000000 - 000000000009f800
      (usable)
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 000000000009f800 - 00000000000a0000
      (reserved)
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 00000000000ca000 - 00000000000cc000
      (reserved)
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 00000000000dc000 - 0000000000100000
      (reserved)
2015-08-13T21:04:17+00:00 vShieldEdge syslog-ng[730]: syslog-ng starting up; version='3.3.11'
```

.
.
.

show service dns

Show DNS service status information.

Synopsis

```
show service dns
```

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config)# show service dns
```

```
-----  
vShield Edge DNS Server Status:  
DNS is not running.
```

show service l2vpn

Show L2VPN service status information.

Synopsis

```
show service l2vpn [bridge | conversion-table | trunk-table}
```

Option	Description
bridge	Shows L2VPN bridge information.
conversion-table	Shows conversion table for tunnel IDs to VLAN/VNI IDs, if they are not the same.
trunk-table	Shows trunk information for interfaces.

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```
nsx-l2vpn-edge(config)# show service l2vpn  
L2 VPN is running.
```

```
-----  
L2 VPN type           : Client  
Tunnel status         : down  
Total bytes sent      : 0  
Total bytes received  : 0
```

show sub-interface

Show sub-interfaces configured on the trunk interface. An NSX Edge can have 10 interfaces (vNic_0 - vNic_9), so the sub-interface numbering starts at 10. The interface index is the TunnelId plus 10.

Synopsis

```
show sub-interface
```

CLI Mode

Configuration, Interface Configuration, L2VPN

Example

```

nsx-12vpn-edge(config)# show sub-interface
Name          Index  TunnelId  NetworkId
-----
vNic_210      210    200       200
-----
total 1

```

ssh (start | stop)

Start or stop the ssh service. It is recommended to stop the ssh service from the console only.

Synopsis

```
ssh (start | stop)
```

CLI Mode

Configuration

Example

```

nsx-12vpn-edge(config)# ssh stop
nsx-12vpn-edge(config)# commit

```

sub-interface pairs

Add a sub-interface with VLAN ID to tunnel ID mapping. The VLAN ID and tunnel ID must be separated by a colon (:). Multiple vlan-tunnel pairs can be specified in the same command, with each pair separated by a space, and the group of pairs enclosed in quotes.

Synopsis

```
sub-interface pairs "vLanID1:tunnelID1 [vLanID2:tunnelID2] [...]"
```

CLI Mode

Configuration

Example

```

nsx-12vpn-edge(config)# sub-interface pairs 250:20
or
nsx-12vpn-edge(config)# sub-interface pairs "300:30 400:31 500:32 600:33"

```

Related Commands

[show sub-interface](#)
[sub-interface range](#)

sub-interface range

Add a range of sub-interfaces with VLAN ID to tunnel ID mapping. The VLAN ID and tunnel ID of each sub-interface is the same when created with this command.

Synopsis

```
sub-interface range startID endID
```

CLI Mode

Configuration

Example

```

nsx-12vpn-edge(config)# sub-interface range 10 15
nsx-12vpn-edge(config)# commit

```

```

nsx-l2vpn-edge(config)# show sub-interface
Name          Index  TunnelId  NetworkId
-----
vNic_20      20     10        10
vNic_21      21     11        11
vNic_22      22     12        12
vNic_23      23     13        13
vNic_24      24     14        14
vNic_25      25     15        15
----- total 6 -----

```

Related Commands

```

show sub-interface
sub-interface pairss

```

trustca

Import one or more CA certificates. Each run of trustca command overwrites the previous configuration. The certificates must be in PEM format. To remove all certificates, use no before the command.

Synopsis

```
[no] trustca
```

CLI Mode

L2VPN

Example

```

nsx-l2vpn-edge(config-l2vpn)# trustca
-----BEGIN CERTIFICATE-----
MIID9zCCAt+gAwIBAg...
.
.
.
-----END CERTIFICATE-----
-----BEGIN CERTIFICATE-----
MIIDjjCCAnagAwIBAgI...
.
.
.
-----END CERTIFICATE-----
quit
nsx-l2vpn-edge(config-l2vpn)#

```

Related Commands

```

show configuration l2vpn
show configuration certificatestore

```

user

Sets the L2VPN username and password. To remove a user, use no before the command.

Synopsis

```
[no] user userName password password
```

CLI Mode

L2VPN

Example

```
nsx-l2vpn-edge(config-l2vpn)# user vpn password vpntest
```

Related Commands

`show configuration 12vpn`

NSX Host Commands

The chapter includes the following topics:

- [“ESXi CLI Commands”](#) on page 155
- [“DVFilter Commands”](#) on page 161

ESXi CLI Commands

This section describes the ESXi CLI commands for NSX vSphere. For additional ESX CLI commands, see *vSphere Command-Line Interface Documentation*.

esxcli network vswitch dvs vmware vxlan config stats get

Shows statistics.

Synopsis

```
esxcli network vswitch dvs vmware vxlan config stats get
```

Example

```
# esxcli network vswitch dvs vmware vxlan config stats get
Level: 1
```

esxcli network vswitch dvs vmware vxlan config stats set

Enable statistics. Adding `level=0` disables statistics.

Synopsis

```
esxcli network vswitch dvs vmware vxlan config stats set
```

esxcli network vswitch dvs vmware vxlan get

Shows VXLAN global states on the system.

Synopsis

```
esxcli network vswitch dvs vmware vxlan get
```

Example

```
# esxcli network vswitch dvs vmware vxlan get
Controlplane Out Of Sync: No
UDPport: 8472
```

esxcli network vswitch dvs vmware vxlan list --vds-name *value*

Shows VXLAN switches information for the specified vDS.

Synopsis

```
esxcli network vswitch dvs vmware vxlan list
```

Example

```
# esxcli network vswitch dvs vmware vxlan list
```

VDS ID	VDS Name	MTU	Segment ID	Gateway IP	Gateway MAC	Network Count	Vmknix Count
35 fe 34 50 d4 59 27 de-e7 9f c0 3d c8 c7 a0 84	dvSwitch	1600	192.168.0.0	192.168.0.254	00:00:0c:00:11:22	1	1

esxcli network vswitch dvs vmware vxlan network list --vds-name *value* --vxlan-id *value*

Shows VXLAN network information with specified vDS.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network list --vds-name value [--vxlan-id value]
```

Example

```
# esxcli network vswitch dvs vmware vxlan network list --vds-name dvSwitch
```

VXLAN ID	Multicast IP	Control Plane	Controller	Connection	Port Count	MAC Entry Count	ARP Entry Count
5000	N/A (headend replication)	Enabled (multicast proxy, ARP proxy)	192.168.100.1	(up)	1	11	1

esxcli network vswitch dvs vmware vxlan network arp list --vds-name *value* --vxlan-id *value*

Retrieves VXLAN network ARP table for specified vDS.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network arp list --vds-name value --vxlan-id value --vdsport-id value
```

Example

```
# esxcli network vswitch dvs vmware vxlan network arplist --vds-name dvSwitch --vxlan-id 5000 --vdsport-id=101
```

IP	MAC	Flags
192.168.200.1	00:50:56:00:11:22	00000000

esxcli network vswitch dvs vmware vxlan network arp reset --vds-name *value* --vxlan-id *value*

Resets VXLAN network ARP table for specified vDS.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network are reset -vds-name value --vxlan-id value
--vdsport-id value
```

esxcli network vswitch dvs vmware vxlan network mac list --vds-name *value* --vxlan-id *value*

Retrieves VXLAN network MAC table for specified vDS.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network mac ABC 500
```

Example

```
# esxcli network vswitch dvs vmware vxlan network mac --vds-name dvSwitch --vxlan-id 5000
```

Inner MAC	Outer MAC	Outer IP	Flags
00:50:56:00:11:23	00:50:56:01:23:45	192.168.0.2	00000000

esxcli network vswitch dvs vmware vxlan network mac reset --vxlan-id *value* --vdsport-id *value*

Resets VXLAN network MAC table for specified vDS.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network mac reset -vxlan-id=value --vdsport-id=value
```

esxcli network vswitch dvs vmware vxlan network port list --vds-name *value* --vdsport-id *value* --vxlan-id *value*

Shows VXLAN port information with specified network.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network port list --vds-name value --vxlan-id value
[--vdsport-id value]
```

Example

```
# esxcli network vswitch dvs vmware vxlan network port list --vds-name dvSwitch --vxlan-id 5000
```

Switch Port ID	VDS Port ID	VMKNIC ID
67108869	101	0

esxcli network vswitch dvs vmware vxlan network port stats list --vds-name *value* --vdsport-id *value* --vxlan-id *value*

Shows VXLAN port statistics information with specified network.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network port stats list --vds-name value --vxlan-id value
--vdsport-id value
```

Example

```
# esxcli network vswitch dvs vmware vxlan network port stats list --vds-name dvSwitch --vxlan-id
5000 --vdsport-id=101
```

Name	Value
tx.total	0
rx.total	0

esxcli network vswitch dvs vmware vxlan network stats list --vds-name *value* --vxlan-id *value*

Shows VXLAN network statistics.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network stats list --vds-name value --vxlan-id value
```

Example

```
# esxcli network vswitch dvs vmware vxlan network stats list --vds-name dvSwitch --vxlan-id 5000
```

Name	Value
tx.total	0
tx.nonUnicast	0
tx.crossRouter	0
tx.drop.total	0
rx.total	0
rx.mcastEncap	0
rx.crossRouter	0
rx.drop.wrongDest	0
rx.drop.invalidEncap	0
rx.drop.total	0
mac.lookup.found	0
mac.lookup.flood	0
mac.lookup.full	0
mac.update.learn	0
mac.update.extend	0
mac.update.full	0
mac.age	0
mac.renew	0
arp.lookup.found	0
arp.lookup.unknown	0
arp.lookup.full	0
arp.lookup.wait	0
arp.lookup.timeout	0
arp.update.update	0
arp.update.unkown	0
arp.update.notFound	0
arp.age	0
arp.renew	0

esxcli network vswitch dvs vmware vxlan network stats reset --vxlan-id *value* --vdsport-id *value*

Resets VXLAN network statistics.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network stats reset -vxlan-id value --vdsport-id value
```

esxcli network vswitch dvs vmware vxlan network vtep list --vds-name *value* --vxlan-id *value* --segment-id *value* --vtep-ip *value*

Retrieves VXLAN network VTEP table for specified vDS. To retrieve VTEP information for a specific segment or VTEP IP address, specify the segmentID or vtepIP parameter.

Synopsis

```
esxcli network vswitch dvs vmware vxlan network mac --vds-name value --vxlan-id value
[--segment-id value --vtep-ip value]
```

Example

```
# esxcli network vswitch dvs vmware vxlan network mac --vds-name dvSwitch --vxlan-id 5000
```

IP	Segment ID	Is MTEP
192.168.0.2	192.168.0.0	False

esxcli network vswitch dvs vmware vxlan vmknic list --vds-name *value* --endpoint-id *value* --vmknic-name *value* --vmknic-ip *value*

Retrieves VXLAN vmknic multicast group information. To retrieve multicast group information for a specific vmknic, specify the vmknic ID, IP, or name using the appropriate parameter.

Synopsis

```
esxcli network vswitch dvs vmware vxlan vmknic list --vds-name value [--endpoint-id value
--vmknic-name value --vmknic-ip value]
```

Example

```
# esxcli network vswitch dvs vmware vxlan vmknic list --vds-name dvSwitch
```

Vmknic Name	Switch Port ID	VDS Port ID	Endpoint ID	VLAN ID	IP	Netmask	IP Acquire Timeout	Multicast Group Count	Segment ID
vmk2	67108868	100	0	0	192.168.0.1	255.255.255.0	34960	0	192.168.0.0

esxcli network vswitch dvs vmware vxlan vmknic multicastgroup list --vds-name *value* --vmknic-id *value* --vmknic-name *value* --vmknic-ip *value*

Retrieves VXLAN network VTEP table for specified vDS. To retrieve VTEP information for a specific segment or VTEP IP address, specify the segmentID or vtepIP parameter.

Synopsis

```
esxcli network vswitch dvs vmware vxlan vmknic multicastgroup list --vds-name value [--vmknic-id
value --vmknic-name value --vmknic-ip value]
```

Example

```
# esxcli network vswitch dvs vmware vxlan network mac --vds-name dvSwitch --vmknic-name vmk2
```

Vmknic Name	Vmknic ID	VXLAN IP	Multicast IP	Joined	Port Count
vmk2	0	192.168.0.1	239.0.0.1	YES	1

esxcli network vswitch dvs vmware vxlan stats list --vds-name *value* --endpoint-id *value* --vmknic-name *value* --vmknic-ip *value*

Retrieves VXLAN vmknic statistics. To retrieve statistics for a specific vmknic, specify the Endpoint ID, IP, or name using the appropriate parameter.

Synopsis

```
esxcli network vswitch dvs vmware vxlan stats list -vds-name value [--endpoint-id value
--vmknic-name value --vmknic-ip value]
```

Example

```
# esxcli network vswitch dvs vmware vxlan stats list --vds-name dvSwitch
```

Name	Value
tx.passThrough	0
tx.vxlanTotal	0
tx.clone	0
tx.tso	0
tx.csum	0
tx.drop.invalidFrame	0
tx.drop.guestTag	0
tx.drop.noResource	0
tx.drop.invalidState	0
rx.passThrough	0
rx.vxlanTotal	0
rx.clone	0
rx.drop.invalidFrame	0
rx.drop.notExist	0
rx.drop.noResource	0
forward.pass	0
forward.reject	0
forward.rpf	0
arpProxy.reply.total	0
arpProxy.reply.fail	0
arpProxy.request.total	0
arpProxy.request.fail	0
mcastProxy.tx.total	0
mcastProxy.tx.fail	0
mcastProxy.rx.total	0
mcastProxy.rx.fail	0

esxcli network vswitch dvs vmware vxlan stats reset --vds-name *value*

Resets VXLAN vDS statistics.

Synopsis

```
esxcli network vswitch dvs vmware vxlan stats reset -vds-name value
```

DVFilter Commands

To use the DVFilter command, log in to the host CLI terminal as root with the password that you specified while installing NSX Manager.

summarize-dvfilter

Shows fast-path and slow-path agents of the DVFilters that are deployed on the host.

Synopsis

```
summarize-dvfilter
```

Example

```
# summarize-dvfilter
Fastpaths:
agent: dvfilter-faulter, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module: dvfilter
agent: dvfg-igmp, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module: dvfg-igmp
agent: dvfilter-generic-vmware, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module:
    dvfilter-generic-fastpath
agent: vmware-sfw, refCount: 1, rev: 0x1010000, apiRev: 0x1010000, module: vsip
agent: dvfilter-generic-vmware-swsec, refCount: 2, rev: 0x1010000, apiRev: 0x1010000, module:
    dvfilter-switch-security

Slowpaths:

Filters:
world 1000672395 vmm0:pro-vm vcUuid:'50 07 6c 09 c9 18 c5 9a-bb 78 37 70 e0 52 bd b6'
port 67108869 pro-vm.eth1
vNic slot 0
name: nic-1000672395-eth1-dvfilter-generic-vmware-swsec.0
agentName: dvfilter-generic-vmware-swsec
state: IOChain Attached
vmState: Detached
failurePolicy: failOpen
slowPathID: none
filter source: Alternate Opaque Channel
```

Related Commands

```
show dfw host hostID summarize-dvfilter
```


NSX Controller Commands

This section describes NSX Controller CLI commands. Log in as the user `admin` to use the NSX Controller commands.

restart controller

Restarts a controller. You must restart only one controller in a cluster at a time.

Synopsis

```
restart controller
```

show control-cluster core connection *ipAddress*

Shows status of specified connection.

Synopsis

```
show control-cluster core connection 11.11.111.11
```

Example

```
nsx-controller # show control-cluster core connection 11.11.111.11
Host-IP      Port  ID
10.24.106.158 53540 3
```

show control-cluster core connection-stats *ipAddress*

Shows statistics for the specified controller.

Synopsis

```
show control-cluster core connection-stats ipAddress
```

Example

```
nsx-controller # show control-cluster core connection-stats 10.24.106.158
messages.received          22
messages.received.dropped 0
messages.transmitted       10
messages.transmit.dropped 0
```

show control-cluster core log-level

Shows log level for the specified controller.

Synopsis

```
show control-cluster core log-level
```

Example

```
nsx-controller # show control-cluster core log-level
Log level: INFO
```

show control-cluster core stats

Shows controller statistics.

Synopsis

```
show control-cluster core stats
```

Example

```
nsx-controller # show control-cluster core stats
messages.received          40
messages.received.dropped  0
messages.transmitted       22
messages.transmit.dropped  0
messages.processing.dropped 0
connections.up             2
connections.down           0
connections.timeout        0
connections.active         2
connections.sharding.subscribed 0
```

show control-cluster logical-routers

Lists all available properties, the required parameters, and their descriptions for logical routers.

Synopsis

```
show control-cluster logical-routers
```

**show control-cluster logical-routers bridge-mac
*logicalRouterID_and/or_bridgeID***

Shows bridge mac records for a bridge of a logical router. *logical_router_ID* and/or *bridge_ID* can be all.

Synopsis

```
show control-cluster logical-routers bridge-mac logicalRouterID_and_bridgeID
```

Example

```
nsx-controller # show control-cluster logical-routers bridge-mac 1 all
LR-Id      Bridge-Id  Mac                Vlan-Id Vxlan-Id Port-Id  Source
1          1001      01:00:00:01:00:00  0        65535   1        vxlan
```

show control-cluster logical-routers bridges *logicalRouterID_and_bridgeID*

Shows bridge instance information for a logical router. *logical_router_id* and/or *bridge-id* can be all.

Synopsis

```
show control-cluster logical-routers bridges logicalRouterID_and_bridgeID
```

Example

```
nsx-controller # show control-cluster logical-routers bridges 1 all
LR-Id      Bridge-Id  Host           Active
1          1001      10.24.106.158  true
```

show control-cluster logical-routers instance *logicalRouterID*

Shows logical router information. *logicalRouterID* can be all.

Synopsis

```
show control-cluster logical-routers instance LogicalRouterID
```

Example

```
nsx-controller # show control-cluster logical-routers instance 1
LR-Id      LR-Name      Hosts[]      Edge-Connection  Service-Controller
1          perfctest    10.24.106.158      10.24.105.58
```

show control-cluster logical-routers interface *LogicalRouterID* *interfaceName*

Shows interface details for logical router specified by ID and name.

Synopsis

```
show control-cluster logical-routers interface LogicalRouterID interfaceName
```

Example

```
nsx-controller # show control-cluster logical-routers interface 1 lif0
Interface-Name:  lif0
Logical-Router-Id:1
Id:              0
Type:            vlan
IP:              10.0.0.0/24
DVS-UUID:        64767331-0000-0000-0000-000000000000
Mac:             00:00:00:00:00:00
Mtu:             1500
Multicast-IP:
Designated-IP:  10.24.106.158
Is-Sedimented:  false
Bridge-Id:
Bridge-Name:
```

show control-cluster logical-routers interface-summary *LogicalRouterID*

Shows interface summary for specified logical router.

Synopsis

```
show control-cluster logical-routers interface-summary LogicalRouter_ID
```

Example

```
nsx-controller # show control-cluster logical-routers interface-summary 1
Interface      Type  Id      IP[]
lif0           vlan  0       10.0.0.0/24
lif1           vlan  1       10.0.1.0/24
```

show control-cluster logical-routers routes *routerID*

Shows static route for router specified by ID. *routerID* can be all.

Synopsis

```
show control-cluster logical-routers routes routerID
```

Example

```
nsx-controller # show control-cluster logical-routers routes 1
LR-Id  Destination      Next-Hop
1      70.70.70.0/24    10.0.1.2
1      80.80.80.0/24    10.0.0.2
```

show control-cluster logical-routers routes *routerID_and_IPaddress_and_prefixLength*

Shows static route for router specified by ID, IP address, and prefix length. *router_ID* can be all.

Synopsis

```
show control-cluster logical-routers routes routerID_and_IPaddress_and_prefixLength
```

Example

```
nsx-controller # show control-cluster logical-routers route 1 70.70.70.0 24
LR-Id      Destination      Next-Hop
1          70.70.70.0/24    10.0.1.2
```

show control-cluster logical-routers stats

Shows statistics of all logical routers on this controller.

Synopsis

```
show control-cluster logical-routers stats
```

Example

```
nsx-controller # show control-cluster logical-routers stats
messages.query      0
messages.update     4
messages.flush      0
messages.notification 0
```

show control-cluster logical-routers vdr-stats *logicalRouterID*

Shows statistics of the specified logical router.

Synopsis

```
show control-cluster logical-routers vdr-stats LogicalRouterID
```

Example

```
nsx-controller # show control-cluster logical-routers vdr-stats 1
host.reports.received      1
host.reports.dropped       0
edge.routes.received       2
edge.routes.dropped        0
bridge.reports.received    1
bridge.reports.dropped     0
bridge.macs.received       1
bridge.macs.dropped        0
route.queries.received     0
interface.queries.received 0
mac.queries.received       0
clear.routes.received      0
clear.macs.received        0
errdecode.messages.dropped 0
memfull.messages.dropped   0
errserver.messages.dropped 0
notifications.error        0
```

show control-cluster logical-switches arp-records *ipAddress*

Shows the ARP records updated from the specified connection.

Synopsis

```
show control-cluster logical-switches arp-records ipAddress
```

Example

```
nsx-controller # show control-cluster logical-switches arp-records 192.168.110.52
VNI      IP          MAC          Connection-ID
5000     192.168.10.6  00:50:56:8e:f5:8b 2
5000     192.168.10.1  00:50:56:8e:6a:04 2
5000     192.168.10.2  00:50:56:8e:9d:88 2
```

show control-cluster logical-switches arp-table vni

Shows the ARP records for the specified VNI.

Synopsis

```
show control-cluster logical-switches arp-table vni
```

Example

```
nsx-controller # show control-cluster logical-switches arp-table 5000
VNI      IP          MAC          Connection-ID
5000     192.168.10.6  00:50:56:8e:f5:8b 2
5000     192.168.10.1  00:50:56:8e:6a:04 2
5000     192.168.10.2  00:50:56:8e:9d:88 2
```

show control-cluster logical-switches connection-table vni

Shows the hosts that are connected to the specified VNI.

Synopsis

```
show control-cluster logical-switches connection-table vni
```

Example

```
nsx-controller # show control-cluster logical-switches connection-table 5000
Host-IP      Port  ID
192.168.110.52 32141 2
192.168.110.51 34692 3
192.168.210.56 33323 4
192.168.210.52 12074 5
192.168.210.51 35441 6
192.168.210.57 56744 7
```

show control-cluster logical-switches joined-vnis ipAddress

Shows which VNIs the specified host has joined.

Synopsis

```
show control-cluster logical-switches joined-vnis ipAddress
```

Example

```
nsx-controller # show control-cluster logical-switches joined-vnis 192.168.110.52
VNI      Controller      BUM-Replication ARP-Proxy Connections VTEPs
5002     192.168.110.202 Enabled          Enabled      6          3
5000     192.168.110.202 Enabled          Enabled      6          2
```

show control-cluster logical-switches mac-records ipAddress

Shows the MAC records updated from the specified connection.

Synopsis

```
show control-cluster logical-switches mac-records ipAddress
```

Example

```
nsx-controller # show control-cluster logical-switches mac-records 192.168.110.52
VNI      MAC                VTEP-IP          Connection-ID
5000     00:50:56:8e:f5:8b  192.168.150.52  2
5000     00:50:56:8e:6a:04  192.168.150.52  2
5000     00:50:56:8e:9d:88  192.168.150.52  2
```

show control-cluster logical-switches mac-table vni

Shows MAC records of the specified VNI.

Synopsis

```
show control-cluster logical-switches mac-table vni
```

Example

```
nsx-controller # show control-cluster logical-switches mac-table 5000
VNI      MAC                VTEP-IP          Connection-ID
5000     00:50:56:8e:f5:8b  192.168.150.52  2
5000     00:50:56:8e:6a:04  192.168.150.52  2
5000     00:50:56:8e:9d:88  192.168.150.52  2
```

show control-cluster logical-switches pkt-cap *pktpcap-uuid* display

Shows packet capture data for the specified packet capture operation.

Synopsis

```
show control-cluster logical-switches pkt-cap pktpcap-uuid display
```

Example

```
nsx-controller # show control-cluster logical-switches pkt-cap
                24301920-126f-4255-bf1b-02f42e001389 display
Time-Stamp Source-IP      Dest-IP          TX/RX Type  Comments
3588336241 192.168.250.53  192.168.250.52 TX   REQ   CAPPT PktFree TSO 0 CSUM 0 CSUMVFD 0 ENCAP
                0 VXLAN 5001 SEGS 1 [ 142 ]
                +0us:UplinkSnd
                +45us:PktFree
3588339300 192.168.250.53  192.168.250.52 TX   REQ   CAPPT PktFree TSO 0 CSUM 0 CSUMVFD 0 ENCAP
                0 VXLAN 5001 SEGS 1 [ 142 ]
                +0us:UplinkSnd
                +82us:PktFree
3588342671 192.168.250.53  192.168.250.52 TX   REQ   CAPPT PktFree TSO 0 CSUM 0 CSUMVFD 0 ENCAP
                0 VXLAN 5001 SEGS 1 [ 142 ]
                +0us:UplinkSnd
                +55us:PktFree
3588662506 192.168.250.53  192.168.250.52 RX   REQ   CAPPT PktFree TSO 0 CSUM 0 CSUMVFD 0 ENCAP
                0 VXLAN 5001 SEGS 1 [ 92 ]
                +0us:EtherswitchDispath
                +4us:EtherswitchOutput
                +0us:PortOutput
                +3us:IOChain
                +0us:PreDVFilter
                +1us:PostDVFilter
                +85us:PktFree
```

Related Commands

```
show control-cluster logical-switches pkt-cap pktpcap-uuid none
start control-cluster logical-switches ping
start control-cluster logical-switches pktpcap
start control-cluster logical-switches pktpcap-time
```

show control-cluster logical-switches pkt-cap *pktpcap-uuid* none

Shows all available packet capture files.

Synopsis

```
show control-cluster logical-switches pkt-cap pktpcap-uuid none
```

Example

```
nsx-controller # show control-cluster logical-switches pkt-cap
                24301920-126f-4255-bf1b-02f42e001389 none
Trace-File-Name
file1-24301920-126f-4255-bf1b-02f42e001389-192.168.250.53-TX.pcapng
file1-24301920-126f-4255-bf1b-02f42e001389-192.168.250.52-RX.pcapng
file1-24301920-126f-4255-bf1b-02f42e001389-192.168.250.52-TX.pcapng
file1-24301920-126f-4255-bf1b-02f42e001389-192.168.250.53-RX.pcapng
```

Related Commands

```
show control-cluster logical-switches pkt-cap pktpcap-uuid display
start control-cluster logical-switches ping
start control-cluster logical-switches pktpcap
start control-cluster logical-switches pktpcap-time
```

show control-cluster logical-switches stats

Shows statistics for all logical switches on this controller.

Synopsis

```
show control-cluster logical-switches stats
```

Example

```
nsx-controller # show control-cluster logical-switches stats
messages.query      2144
messages.update     64
messages.flush      1
messages.notification 0
```

show control-cluster logical-switches stats-sample

Shows the latest samples of node statistics.

Synopsis

```
show control-cluster logical-switches stats-sample
```

Example

```
nsx-controller # show control-cluster logical-switches stats-sample
                03:44:10  03:44:20  03:44:30  03:44:40  03:44:50
messages.query      2144      2144      2144      2144      2145
messages.update     64         64         64         64         64
messages.flush      1          1          1          1          1
messages.notification 0          0          0          0          0
```

show control-cluster logical-switches vni *vni*

Shows controller, configuration, and status of the specified VNI.

Synopsis

```
show control-cluster logical-switches vni vni
```

Example

```
nsx-controller # show control-cluster logical-switches vni 5000
```

VNI	Controller	BUM-Replication	ARP-Proxy	Connections	VTEPs
5000	192.168.110.202	Enabled	Enabled	6	2

show control-cluster logical-switches vni-stats vni

Shows statistics for the specified VNI.

Synopsis

```
show control-cluster logical-switches vni-stats vni
```

Example

```
nsx-controller # show control-cluster logical-switches vni-stats 5000
update.member          6
update.vtep            12
update.mac              1
update.mac.invalidate  0
update.arp              1
update.arp.duplicate   0
query.mac               716
query.mac.miss         0
query.arp               3
query.arp.miss         1
```

show control-cluster logical-switches vni-stats-sample vni

Shows the latest statistics samples for the specified VNI.

Synopsis

```
show control-cluster logical-switches vni-stats-sample vni
```

Example

```
nsx-controller # show control-cluster logical-switches vni-stats-sample 5000
                                03:00:00  03:10:00  03:20:00  03:30:00  03:40:00
update.member                  0         0         0         0         0
update.vtep                    0         0         0         0         0
update.mac                      0         0         0         0         0
update.mac.invalidate          0         0         0         0         0
update.arp                      0         0         0         0         0
update.arp.duplicate           0         0         0         0         0
query.mac                       1         2         1         1         2
query.mac.miss                  0         0         0         0         0
query.arp                       0         0         0         0         0
query.arp.miss                  0         0         0         0         0
```

show control-cluster logical-switches vtep-records ipAddress

Shows the VTEP records updated from the specified connection.

Synopsis

```
show control-cluster logical-switches vtep-records ipAddress
```

Example

```
nsx-controller # show control-cluster logical-switches vtep-records 192.168.110.52
VNI      IP              Segment      MAC              Connection-ID
5000     192.168.150.52    192.168.150.0  00:50:56:60:1e:dd 2
```

show control-cluster logical-switches vtep-table vni

Shows the VTEP table for the specified VNI.

Synopsis

```
show control-cluster logical-switches vtep-table vni
```

Example

```
nsx-controller # show control-cluster logical-switches vtep-table 5000
VNI      IP          Segment      MAC          Connection-ID
5000     192.168.250.52  192.168.250.0  00:50:56:6b:37:64  5
5000     192.168.150.52  192.168.150.0  00:50:56:60:1e:dd  2
```

show control-cluster startup-nodes

Shows the set of NSX Controller nodes that this node will attempt to connect to upon startup in order to rejoin its NSX Controller cluster. This is not an accurate list of active nodes in the controller cluster and may include nodes that are inactive, or may exclude nodes that are active.

Synopsis

```
show control-cluster startup-nodes
```

Example

```
nsx-controller # show control-cluster startup-nodes
10.24.105.59
```

show control-cluster status

Shows control-cluster status. The example below shows that the controller status is normal. All controllers in the cluster should have the same cluster ID as the first controller.

Synopsis

```
show control-cluster status
```

Example

```
nsx-controller # show control-cluster status
Type Status Since
-----
Join status: Join complete 08/15 00:39:57
Majority status: Connected to cluster majority 08/15 00:39:33
Restart status: This controller can be safely restarted 08/15 00:40:03
Cluster ID: 2105ad76-0449-47ef-9f99-83e7ddd14cd0
Node UUID: 2105ad76-0449-47ef-9f99-83e7ddd14cd0
Role Configured status Active status
-----
api_provider enabled activated
persistence_server enabled activated
switch_manager enabled activated
logical_manager enabled activated
directory_server enabled activated
```

show network interface

Shows the IP address of the controller.

Synopsis

```
show network interface
```

CLI Mode

Basic, Privileged

start control-cluster logical-switches ping

Starts a ping capture to test connectivity between VTEPs.

Synopsis

```
start control-cluster logical-switches ping vni vtepIP1 vtepIP2 scheme packetNum packetSize trace
      fileName
```

Example

```
nsx-controller# start control-cluster logical-switches ping 5001 192.168.250.52 192.168.250.53 uni
      3 50 trace file1
Operation Status
Operation in progress: 24301920-126f-4255-bf1b-02f42e001389
Capture stage StartCaptureHostRx, failure time-out is 63 seconds
Retrieve results with command: show control-cluster logical-switches pkt-cap
      24301920-126f-4255-bf1b-02f42e001389 <display|none>
```

Related Commands

```
show control-cluster logical-switches pkt-cap pktcap-uuid none
show control-cluster logical-switches pkt-cap pktcap-uuid display
start control-cluster logical-switches pktcap
start control-cluster logical-switches pktcap-time
```

start control-cluster logical-switches pktcap

Starts packet capture on the host identified by the VTEP IP. The package capture runs for *maxPackets* packets. See `pktcap-uw` for supported command arguments. The `pktcap-uw` command arguments must be surrounded by single quotes.

Synopsis

```
start control-cluster logical-switches pktcap vni vtepIP maxPackets fileName commandArguments
```

Example

```
nsx-controller # start control-cluster logical-switches pktcap 5001 192.168.250.53 3 file2 '--vmk
      vmk3'
Operation Status
Operation in progress: c77a1eeb-33a9-48c4-9676-988913001389
Capture for 300 seconds or 3 packets
Retrieve results with command: show control-cluster logical-switches pkt-cap
      c77a1eeb-33a9-48c4-9676-988913001389 none
```

Related Commands

```
show control-cluster logical-switches pkt-cap pktcap-uuid none
show control-cluster logical-switches pkt-cap pktcap-uuid display
start control-cluster logical-switches ping
start control-cluster logical-switches pktcap-time
```

start control-cluster logical-switches pktcap-time

Starts packet capture on the host identified by the VTEP IP. See `pktcap-uw` for supported command arguments. The package capture runs for *maxTime* seconds.

Synopsis

```
start control-cluster logical-switches pktcap-time vni vtepIP maxTime fileName commandArguments
```

Example

```
nsx-controller # start control-cluster logical-switches pktcap-time 5001 192.168.250.53 20 file3
      '--vmk vmk3'
Operation Status
Operation in progress: 0e9389c8-d1a4-480f-a582-e5d937001389
Capture for 20 seconds or 10000 packets
```

Retrieve results with command: `show control-cluster logical-switches pkt-cap`
`0e9389c8-d1a4-480f-a582-e5d937001389 none`

Related Commands

```
show control-cluster logical-switches pkt-cap pktcap-uuid none
show control-cluster logical-switches pkt-cap pktcap-uuid display
start control-cluster logical-switches ping
start control-cluster logical-switches pktcap
```


Hardware Gateway Commands

This section describes CLI commands used to troubleshoot common issues with a hardware gateway deployment. Log in as the user `admin` to use these commands. This chapter includes the following sections:

- [“Hardware Gateway Query Commands”](#) on page 163
- [“Replicator Node Command”](#) on page 164
- [“Bindings Commands”](#) on page 165
- [“Hosts Commands”](#) on page 166
- [“Controllers Commands”](#) on page 167
- [“Agents Commands”](#) on page 168

For additional information about hardware gateways, see:

- [“Configuring Hardware Gateways”](#) in the *NSX for vSphere Administration Guide*
- [“Managing Hardware Gateways”](#) in the *NSX for vSphere API Reference Guide*
- documentation from your hardware gateway vendor

Hardware Gateway Query Commands

Use these commands to query hardware gateways.

show hardware-gateway list

Shows a list of known hardware gateways (regardless of status).

Synopsis

```
show hardware-gateway list
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway list
ID                Name                BFD Enabled    Management IP    UUID
torgateway-1     torgateway1         true           10.144.137.91
                  3e5ffd66-448d-4e54-82ec-92fffd46d4af
torgateway-2     torgateway2         true           10.144.138.116
                  6c43af48-d742-43b4-9416-10c508edbdcf
```

show hardware-gateway hsc *hardwareGatewayID* brief

Shows the relevant data of the specified hardware gateway in a brief format.

Synopsis

```
show hardware-gateway hsc hardwareGatewayID brief
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway hsc torgateway-1 brief
ID                               Name                               BFD Enabled   Management IP   UUID
-----
to rgateway-1                    to rgateway1                       true          10.144.137.91  3e5fffd66-448d-4e54-82ec-92fffd46d4af
```

show hardware-gateway hsc *hardwareGatewayID* certificate

Shows the certificate of the specified hardware gateway.

Synopsis

```
show hardware-gateway hsc hardwareGatewayID certificate
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway hsc torgateway-1 certificate
-----BEGIN CERTIFICATE-----
MIIDeDCCAmACAQEwDQYJKoZIhvcNAQEFBQAwYExCZAJBgNVBAYTA1VTMQswCQYD
VQQIEwJJDQTEVMBMGA1UEChMMT3B1biB2U3dpdGNoMREwDwYDVQQLEwhzd210Y2hj
YTE7MDkGA1UEAxMyT1ZTIHN3aXRjaGNhIENBIEN1cnRpZm1jYXR1ICgyMDE2IEFw
ciAyOCAwMDoxMjoyNSkwHhcNMjYwNDI4MDCxMjI1WhcNMjYwNDI4MDCxMjI1WjCB
gTELMAkGA1UEBhMCVVMxZAJBgNVBAgTAKNBMRUwEwYDVQQKEwxPcGVuIHZTd210
Y2gxETAPBgNVBAsTCHN3aXRjaGNhMTswOQYDVQQDEzJpV1Mgc3dpdGNoY2EgQ0Eg
Q2Vydg1maWnhdGUgKDIwMTYgQXByIDI4IDAwa0JyEjY0I1KTCCASIDQYJKoZIhvcN
AQEBBQADggEPADCCAQoCggEBANzi0Aj1kYYLJMdDEXhv8uAc/4HcJhI1v+kG3I9
H7HXWbxdTxXJ9KLWz2XV11tUyjeiXicJWmMiv9I0bcyQK+d2wCZ0TCSbjt+EKW4
LdSUNvaz3ap960dlcozURt4jVKn8TYYteG6hiNNvDwig+10sKs4QSbCT1RJJMBNy
P9wMB1g86BuiZyu3AM3/FrNtkvyvjK5NOGsyZYfBpUuz9i7Wrc3oai0Yb7LXvgBN
0wysrTjVH6QbAjj56C5M+U3+SJNwB0qzguXXmzyKNVsPRUXfNsVpxuYk1ArkLgh2
Qqk/L8pFBPVrgbXfAWhYPjYM7Vfr0T3F/64yCpDk5ENkPcCAwEAATANBgkqhkiG
9w0BAQUFAAOCAQEAJIRkgP4ZW8rNAindvIH3P0ErsgDXsGXx00ws6htSbuH73C4E
1imLsr6FZMt68B4nf9vVRRusxHUmWtX8Y252Mm/ky9ABp0L0qsoz7XCGTUmhsn2W
42AWbqow1CstQ+fqyhTXOm4V0Tmc4IyknRNNKr0X9jWbqLetDNRfSuzsX+tiDfW
OdDpHQ+7vxOFYnk7jKEhp2s+jU31oJEgWbQxL25xA+bgur9CM0XwLt6/gkTI/7XK
YpSos4Nuss4RytUiXgE3L0xKy9gkDFLEnz0ORH+7FevUX/ueNdhzj2bipKCwxrWT
HZwVA6dvBaZj1WvoAovxoH7NbGcGAoC6neQvYQ==
-----END CERTIFICATE-----
```

Replicator Node Command

Use this command to query replicator nodes.

show hardware-gateway replicator-nodes

Shows all replicator nodes on the hardware gateway.

Synopsis

```
show hardware-gateway replicator-nodes
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway replicator-nodes
ID                Host Name/IP
host-26           10.144.137.20
host-21           10.144.138.181
host-20           10.144.138.50
```

Bindings Commands

Use these commands to query bindings on the hardware gateway.

show hardware-gateway binding all

Shows all bindings on the hardware gateway.

Synopsis

```
show hardware-gateway binding all
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway binding all
Switch Name      Port Name      VLAN ID  VNI      Hardware Gateway
1-switch-603     p1             0        8823     torgateway-1
1-switch-603     p2             0        8824     torgateway-1
1-switch-168     p1             0        8823     torgateway-2
1-switch-168     p2             0        8824     torgateway-2
```

show hardware-gateway binding hsc *hardwareGatewayID* all

Shows all bindings for the specified hardware gateway.

Synopsis

```
show hardware-gateway binding hsc hardwareGatewayID all
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway binding hsc torgateway-1 all
Switch Name      Port Name      VLAN ID  VNI      Hardware Gateway
1-switch-603     p1             0        8823     torgateway-1
1-switch-603     p2             0        8824     torgateway-1
```

show hardware-gateway binding vni *vni* all

Shows all bindings for the specified virtual network instance.

Synopsis

```
show hardware-gateway binding vni vni all
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway binding vni 8823 all
Switch Name      Port Name      VLAN ID  VNI      Hardware Gateway
```

1-switch-603	p1	0	8823	torgateway-1
1-switch-168	p1	0	8823	torgateway-2

show hardware-gateway binding hsc *hardwareGatewayID* vni *vni*

Shows all bindings for the specified virtual network instance on the specified hardware gateway.

Synopsis

```
show hardware-gateway binding hsc hardwareGatewayID vni vni
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway binding hsc torgateway-1 vni 8823
Switch Name      Port Name      VLAN ID  VNI      Hardware Gateway
1-switch-603     p1             0        8823     torgateway-1
```

Host Commands

Use these commands to query host information.

show hardware-gateway host *hostID* vnis

Shows the virtual network instances on the specified host.

Synopsis

```
show hardware-gateway host hostID vnis
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway host host-21 vnis
Is PTEP:         Yes
VXLAN count:     2
VXLAN IDs:
    8824
    8823
```

show hardware-gateway host *hostID* bfd-tunnels

Shows the tunnels (BFD configuration) on the specified host.

Synopsis

```
show hardware-gateway host hostID bfd-tunnels
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway host host-21 bfd-tunnels
BFD count:       2
172.18.171.169 --> 172.21.145.84 , Inner Dest IP: 169.254.1.0 , Inner Dst Mac:
00:23:20:00:00:01 , Local State: up, Remote State: up

172.18.171.169 --> 172.21.145.85 , Inner Dest IP: 169.254.1.0 , Inner Dst Mac:
00:23:20:00:00:01 , Local State: up, Remote State: up
```

Controller Commands

Use these commands to query information about the hardware gateway controller.

show hardware-gateway controller *controllerIP* list

Shows details on the specified hardware gateway controller.

Synopsis

```
show hardware-gateway controller controllerIP list
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway controller 10.144.136.210 list
ToR-Uuid                               Bfd-Enabled      UtepProbeInterval
3e5ffd66-448d-4e54-82ec-92ffffd46d4af  true              300
6c43af48-d742-43b4-9416-10c508edbdcf   true              300
```

show hardware-gateway controller *controllerIP* hsc *hardwareGatewayID* certificate

Shows the certificate of the specified hardware gateway.

Synopsis

```
show hardware-gateway controller controllerIP hsc hardwareGatewayID certificate
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway controller 10.144.136.211 hsc torgateway-1 certificate
-----BEGIN CERTIFICATE-----
MIIDeDCCAmACAQEwDQYJKoZIhvcNAQEFBQAwgYExCzAJBgNVBAYTA1VMTQswCQYD
VQQIEwJDQTEVMBMGAA1UEChMMT3B1biB2U3dpdGNoMREwDwYDVQQLEwhzd210Y2hj
YTE7MDkGA1UEAxMyT1ZTIHN3aXRjaGNhIENBIEN1cnRpZm1jYXR1ICgyMDE2IEFw
ciAyOCAwMDoxMjoyNSkwHhcNMjYwNDI4MDcxMjI1WhcNMjYwNDI4MDcxMjI1WjCB
gTELMakGA1UEBHMCMVVMxMzAJBgNVBAGTAkNBMRUwEwYDVQQKEwxCVUwIHZTd210
Y2gxETAPBgNVBAsTCHN3aXRjaGNhMTswOQYDVQQDEzJpVIMgc3dpdGNoY2EgQ0Eg
Q2VydG1maWNoZGUgKDIwMTYgQXB5IDI4IDAuOjE5OjE1KTCCASIwDQYJKoZIhvcN
AQEBBQADggEPADCCAQoCggEBANzi0Ajl1kYYLJMdDEXhv8uAc/4HcJhI1v+kG3I9
H7HXWbxdTXJ9KLwZ2XV11tUyjeiXicJWmMiv9I0bcyQK+d2wCZ0TCsbjt+EKW4
LdSUNVaz3ap960dlcozURt4jvK8TYyteG6hiNNvDwig+10sKs4Q5bCT1RJJMBNy
P9wMB1g86BUiZyu3AM3/FrNtkvvyjK5NOGsyZYfBpUuz9i7wrc3oai0Yb7LXvgBN
0wysrTjVH6QbAjj56C5M+U3+SJNwB0qzguXXmzyKNVsPRUXfNsvpxuYk1ArkLgh2
Qqk/L8pFBPVrgbXfAWHYPjYM7Vfr00T3F/64yCpDk5ENkPcCAwEAATANBgkqhkiG
9w0BAQUFAAOCAQEAJIRkgP4Zw8rNAindvIH3P0ErsgDXsGXx00ws6htSbuH73C4E
1imLsr6FZMt68B4nf9vVRRusxHUmWtX8Y252Mm/ky9ABp0L0qsoz7XCGTUmhsn2W
42AWbqoWlCstQ+FqyhTXOm4V0Tmc4IyknRNNKr0X9jWbqLetDNRFsZuzsX+tiDfW
OdDpHQ+7vx0FYnk7jKEhp2s+jU3loJEgWbQxL25xA+bguR9CM0XwLt6/gkTI/7XK
YpS0s4Nuss4RytUiXgE3L0xKy9gkDFLEnz0ORH+7FevUX/ueNdhzj2bipKCwXrWt
HZwVA6dvBaZj1WvoAovxoH7NbGcGAoC6neQvYQ==
-----END CERTIFICATE-----
```

show hardware-gateway controller *controllerIP* port-bindings

Shows the port bindings (logical port attachment configuration) of the specified hardware gateway controller.

Synopsis

```
show hardware-gateway controller controllerIP port-bindings
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway controller 10.144.136.211 port-bindings
Vni  Vlan  Switch-Name  Port-Id  ToR-Uuid
8823  0      1-switch-603  p1       3e5ffd66-448d-4e54-82ec-92fffd46d4af
8823  0      1-switch-168  p1       6c43af48-d742-43b4-9416-10c508edbdcf
8824  0      1-switch-168  p2       6c43af48-d742-43b4-9416-10c508edbdcf
8824  0      1-switch-603  p2       3e5ffd66-448d-4e54-82ec-92fffd46d4af
```

show hardware-gateway controller *controllerIP* control-nodes

Shows all controller nodes of the specified hardware gateway controller.

Synopsis

```
show hardware-gateway controller controllerIP control-nodes
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway controller 10.144.136.211 control-nodes
Node-Uuid  IP  Port
94ecd027-a210-452f-8e98-77d6100f2fc3  10.144.136.212  1234
e37a1fcc-2c72-4b87-9487-e700b6fbc3d6  10.144.136.211  1234
7a90d58e-6224-46f6-bd8b-69746ba4e128  10.144.136.210  1234
```

show hardware-gateway controller *controllerIP* hsc *hardwareGatewayID* inventory

Shows all inventory information of the specified hardware gateway.

Synopsis

```
show hardware-gateway controller controllerIP hsc hardwareGatewayID inventory
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway controller 10.144.136.212 hsc torgateway-1 inventory
Switch-Name  Port-Id
1-switch-603  p4
1-switch-603  p3
1-switch-603  p2
1-switch-603  p1
```

Agent Commands

Use these commands to query hardware gateway agent information.

show hardware-gateway agent *agentIP* status

Shows the connection status of the specified hardware gateway.

Synopsis

```
show hardware-gateway agent agentIP status
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 status
controller IP           connection status
10.144.136.210         connected
10.144.136.212         connected
10.144.136.211         connected
```

show hardware-gateway agent *agentIP* replication-cluster

Shows the PTEP list for a specified VNI on the specified hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP replication-cluster
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 replication-cluster

172.18.175.120
172.18.175.119
172.19.226.89
```

show hardware-gateway agent *agentIP* hardware-gateway [*uuid*]

Show details about the master hardware gateway agent for the specified hardware gateway instance on the specified master gateway agent.

The *<uuid>* of the hardware gateway instance is optional. If unspecified, then this command returns a list of all hardware hardware gateways mastered by this hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP hardware-gateway [uuid]
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 hardware-gateway
3e5ffd66-448d-4e54-82ec-92fffd46d4af

UUID           3e5ffd66-448d-4e54-82ec-92fffd46d4af
Ip             10.144.137.91
Instance Id    1
Connected      true
Physical Master true
Bfd Enabled    true
Bfd Probe Interval 300
Session Id     cb492832-322c-4d56-be9f-31b74d033ec9
Certificate    -----BEGIN CERTIFICATE-----
MIIDECCAmACAQEWdQYJKoZIhvcNAQEFBQAwgYExCzAJBgNVBAYTA1VMTQswCQYD
VQQIEWhJDQTEVMBMGA1UEChMT3B1biB2U3dpdGNoMREwDwYDVQQLEWhzd210Y2hj
YTE7MDkGA1UEAxMyT1ZTIHN3aXRjaGNoIENBIEN1cnRpZm1jYXR1ICgyMDE2IEFw
```

```

ciAyOCAwMDoxMjoyNSkwHhcNMTYwNDI4MDcxMjI1WhcNMjYwNDI2MDcxMjI1WjCB
gTElMAkGA1UEBhMCVVMxMzAjbG9nbGAgTAKNBMRUwEwYDVQQKEwxEwPcGVuIHZTd210
Y2gxETAPBgNVBAsTCHN3aXRjaGNhMTswOQYDVQQDEzJFVlMgc3dPdGNoY2EgQ0Eg
Q2VydgImaWnhdGUgKDlWMTYgQXByIDI4IDAwOjEY0jI1KTCCASlWdQYJKoZIhvcN
AQEBBQADggEPADCCAQoCggEBAJnzi0Aaj1kYyLJMdDEXhv8uAc/4HcJhI1v+kG3I9
H7HXWbxdXTxXJ9KLwZ2XV11tUyjeiXicJWmMiv9I0bcyQK+d2WCZ0TCSbjt+EKW4
LdSUNVaz3ap960dlcozuRT4jVKn8TYTeG6hiNNvDwig+10sKs4QsBCT1RJJMBNy
P9wMB1g86BuiZyu3AM3/FrNtkvyvjK5NOGsyZYfBpUuz9i7Wrc3oai0Yb7LXvgBN
0wysrTjVH6QbAjj56C5M+U3+SJNwB0qzguXXmzyKNVsPRUXfNsvpXuYk1ArkLgh2
Qqk/L8pFBPvrgbXfAwhYPjYM7Vfr00T3F/64yCpDk5ENkPcCAwEAATANBgkqhkiG
9w0BAQUFAAOCAQEAJIRkgP4ZW8rNAindvIH3P0ErsGDXsGXx00ws6htSbuH73C4E
limLsr6FZMt68B4nf9vVRRusxHUmWtX8Y252Mm/ky9ABp0L0qsoz7XCGTUmhsn2W
42AWbqowlCstQ+FqyhTXOm4V0Tmc4IyknRNNkr0X9jWbqLetDNRFsZuzsX+tiDfW
OdDpHQ+7vx0FYnk7jKEhp2s+jU31oJEgWbQxL25xA+bgur9CM0XwLt6/gkTI/7XK
YpSos4Nuss4RytUiXgE3L0xKy9gkDFLEnz0ORH+7FevUX/ueNDhzj2bipKCwxrwT
HZwVA6dvBaZj1WvoAovxoH7NbGcGAoC6neQvYQ==
-----END CERTIFICATE-----

```

show hardware-gateway agent *agentIP* hardware-gateway *hardwareGatewayUuid* tunnels

Shows the tunnel table (including BFD) on the specified hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP hardware-gateway hardwareGatewayUuid tunnels
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 192.161.126.22 hardware-gateway
1e100ec0-b15a-4727-ba9f-ebdb74e357f2 tunnels
```

```

Endpoints
  Local Ip           172.21.145.85
  Remote Ip         172.19.152.225
Local config
  Destination Ip    169.254.1.0
  Destination Mac   00:23:20:00:00:01
Remote config
  Destination Ip    172.19.152.226
  Destination Mac   00:00:00:00:00:00
BFD parameters
  Enable            false
  Min Rx
  Min Tx
  Forwarding If Rx false
BFD status
  Diagnostic
  Enabled           false
  Forwarding        false
  Remote diagnostic
  Remote state
  State
  Info

Endpoints
  Local Ip           172.21.145.85
  Remote Ip         172.19.152.226
Local config
  Destination Ip    169.254.1.0
  Destination Mac   00:23:20:00:00:01
Remote config
  Destination Ip    172.19.152.226
  Destination Mac   00:00:00:00:00:00

```

```

BFD parameters
  Enable          true
  Min Rx          300
  Min Tx
  Forwarding If Rx true
BFD status
  Diagnostic      Control Detection Time Expired
  Enabled         true
  Forwarding      true
  Remote diagnostic Control Detection Time Expired
  Remote state    up
  State           up
  Info

Endpoints
  Local Ip        172.21.145.85
  Remote Ip       172.18.171.168
Local config
  Destination Ip   169.254.1.0
  Destination Mac  00:23:20:00:00:01
Remote config
  Destination Ip   172.18.171.168
  Destination Mac  00:00:00:00:00:00
BFD parameters
  Enable          true
  Min Rx          300
  Min Tx
  Forwarding If Rx true
BFD status
  Diagnostic      Neighbor Signaled Session Down
  Enabled         true
  Forwarding      true
  Remote diagnostic Control Detection Time Expired
  Remote state    up
  State           up
  Info

Endpoints
  Local Ip        172.21.145.85
  Remote Ip       172.18.171.169
Local config
  Destination Ip   169.254.1.0
  Destination Mac  00:23:20:00:00:01
Remote config
  Destination Ip   172.18.171.169
  Destination Mac  00:00:00:00:00:00
BFD parameters
  Enable          true
  Min Rx          300
  Min Tx
  Forwarding If Rx true
BFD status
  Diagnostic      Neighbor Signaled Session Down
  Enabled         true
  Forwarding      true
  Remote diagnostic Control Detection Time Expired
  Remote state    up
  State           up
  Info

```

**show hardware-gateway agent *agentIP* hardware-gateway
hardwareGatewayUuid local-macs [vni]**

Shows the local MAC tables (unicast and multicast) on the specified hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP hardware-gateway hardwareGatewayUuid local-macs [vni]
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 hardware-gateway
3e5ffd66-448d-4e54-82ec-92fffd46d4af local-macs
```

```
Hardware Gateway UUID          3e5ffd66-448d-4e54-82ec-92fffd46d4af
Local Unicast Macs
  Macs                          Empty
Local Multicast Macs
  VNI                            8823
  Macs
    Mac                          unknown-dst
    Ip
    Logical Switch UUID          6c752ceb-b3e9-3bbb-82cb-59c3e19a27bf
    VNI                            8823
    Vtep Ips                      172.21.225.182
VNI                              8824
Macs
    Mac                          unknown-dst
    Ip
    Logical Switch UUID          801a0897-5938-3ea9-ba5f-77ecc339f4be
    VNI                            8824
    Vtep Ips                      172.21.225.182
```

show hardware-gateway agent *agentIP* hardware-gateway *hardwareGatewayUuid* physical-inventory

Shows the hardware gateway physical inventory (switches and ports) on the specified hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP hardware-gateway hardwareGatewayUuid physical-inventory
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 hardware-gateway
3e5ffd66-448d-4e54-82ec-92fffd46d4af physical-inventory
```

```
Hardware Gateway UUID          3e5ffd66-448d-4e54-82ec-92fffd46d4af
Physical Switches
  Name                          1-switch-603
  Description                    OVS VTEP Emulator
  Management Ips                 Empty
  Tunnel Ips                      172.21.225.182
  Fault Status                   Empty
  Physical Ports
    Name                          p4
    Physical Switch Name          1-switch-603
```

```

Current Bindings          Empty
Fault Status             Empty

Name                     p3
Physical Switch Name     1-switch-603
Current Bindings         Empty
Fault Status             Empty

Name                     p2
Physical Switch Name     1-switch-603
Current Bindings         0
                        801a0897-5938-3ea9-ba5f-77ecc339f4be
Fault Status             Empty

Name                     p1
Physical Switch Name     1-switch-603
Current Bindings         0
                        6c752ceb-b3e9-3bbb-82cb-59c3e19a27bf
Fault Status             Empty

```

show hardware-gateway agent *agentIP* hardware-gateway *hardwareGatewayUuid* bindings

Shows hardware gateway attachments of logical ports (physical switch and port, VNI, VLAN) on the specified hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP hardware-gateway hardwareGatewayUuid bindings
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 hardware-gateway
3e5ffd66-448d-4e54-82ec-92fffd46d4af bindings
```

```

UUID                    f04348e8-90b4-3f83-bf2e-82b44a43e55d
Logical Switch UUID     6c752ceb-b3e9-3bbb-82cb-59c3e19a27bf
VNI                     8823
Hardware Gateway UUID   3e5ffd66-448d-4e54-82ec-92fffd46d4af
Switch Name             1-switch-603
Port Name               p1
VLAN                    0
Statistics
  Packets from local    3518
  Bytes from local      566017
  Packets to local      11742
  Bytes to local        3427838

UUID                    b6e273de-bff8-3c43-a4c7-9e42a671f004
Logical Switch UUID     801a0897-5938-3ea9-ba5f-77ecc339f4be
VNI                     8824
Hardware Gateway UUID   3e5ffd66-448d-4e54-82ec-92fffd46d4af
Switch Name             1-switch-603
Port Name               p2
VLAN                    0
Statistics
  Packets from local    759119
  Bytes from local      107781854
  Packets to local      8287
  Bytes to local        2824944

```

show hardware-gateway agent *agentIP* logical-switches

Shows the list of logical switches (UUID, VNI) known to the specified hardware gateway agent.

Synopsis

show hardware-gateway agent *agentIP* logical-switches

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 logical-switches
```

UUID	801a0897-5938-3ea9-ba5f-77ecc339f4be
VNI	8824
UUID	6c752ceb-b3e9-3bbb-82cb-59c3e19a27bf
VNI	8823

show hardware-gateway agent *agentIP* logging-level

Gets the current logging level on the specified hardware gateway agent. One of the following values:

- ERROR
- WARN
- INFO
- DEBUG
- TRACE

Synopsis

show hardware-gateway agent *agentIP* logging-level

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent 10.144.136.212 logging-level
Log level: INFO
```

set hardware-gateway agent *agentIP* logging-level *hardwareGatewayAgentLogLevel*

Sets logging on the specified hardware gateway agent to one of the following levels:

- ERROR
- WARN
- INFO
- DEBUG
- TRACE

Synopsis

set hardware-gateway agent *agentIP* logging-level *hardwareGatewayLogLevel*

CLI Mode

Basic

Example

```
nsx-mgr> set hardware-gateway agent 10.144.136.212 logging-level DEBUG
```

show hardware-gateway agent *agentIP* dump

Shows a full information dump of the specified hardware gateway agent.

Synopsis

```
show hardware-gateway agent agentIP dump
```

CLI Mode

Basic

Example

```
nsx-mgr> show hardware-gateway agent agentIP dump
```


Deprecated Commands

The following table lists deprecated commands.

Table 8-1. Deprecated Commands

Command
cli ssh allow
clear firewall counters
clear vwall rules
clear vty
close support-tunnel
copy http URL slot (1 2)
copy http URL temp
copy scp URL slot (1 2)
copy scp URL temp
debug copy
debug export snapshot
debug import snapshot
debug service
debug service flow src
debug show files
debug snapshot list
debug snapshot remove
debug snapshot restore
default web-manager password
duplex auto
duplex (half full) speed (10 100 1000)
htp server
ip name server
ip policy-address
link-detect
linkwatch interval <5-60>
manager key
mode policy-based-forwarding
ntp server
open support-tunnel

Table 8-1. Deprecated Commands

Command
set support key
show alerts
show debug log
show dv-support
show hardware
show gateway rules
show interface
shop ip addr
show iptables
show kernel message
show kernel message last
show log alerts
show log events
show service helpers
show service statistics
show services
show session-manager counters
show session-manager sessions
show stacktrace
show startup-config
show raid
show raid detail
show realms
copy running-config startup-config
show running-config
show syslog
show system events
show system network_connections
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esxcli network vswitch dvs vmware vxlan network
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value **158**
esxcli network vswitch dvs vmware vxlan network list
--vds-name value vxlan-id value **158**
esxcli network vswitch dvs vmware vxlan network
mac list --vds-name value --vxlan-id
value **159**
esxcli network vswitch dvs vmware vxlan network
mac reset --vxlan-id value --vdsport-id
value **159**
esxcli network vswitch dvs vmware vxlan network
port list --vds-name value --vdsport-id value
--vxlan-id value **159**
esxcli network vswitch dvs vmware vxlan network
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