

# NSX Command Line Interface Reference

VMware NSX for vSphere 6.3

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# About This Book

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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, including VMware ESX, vCenter Server, and the vSphere Client.

## VMware Technical Publications Glossary

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## 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 Troubleshooting Guide*
- *NSX Command Line Interface Reference*
- *NSX API Guide*



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# Introduction to the NSX CLI

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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.

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

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This chapter includes the following topics:

- [“Logging In and Out of the CLI”](#) on page 11
- [“Syntax Notation Used in this Document”](#) on page 12
- [“NSX Manager and NSX Edge CLI Command Modes”](#) on page 12
- [“Moving Around in the NSX Manager and NSX Edge CLI”](#) on page 13
- [“Getting Help within the NSX Manager and NSX Edge CLI”](#) on page 13

## 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)#
```

## copy running-config startup-config

Copies the current system configuration to the startup configuration.

### Synopsis

```
copy running-config startup-config
```

### CLI Mode

Privileged

**Example**

```
nsx-mgr# copy running-config startup-config
Building Configuration...
Configuration saved.
[OK]
```

**Related Commands**

```
show running-config
show startup-config
```

**disable**

Switches to Basic mode from Privileged mode.

**Synopsis**

```
disable
```

**CLI Mode**

Basic

**Example**

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

**Related Commands**

```
enable
```

**debug show files**

Shows the tcpdump files that have been saved.

**Synopsis**

```
debug show files
```

**CLI Mode**

Privileged

**Example**

```
nsx-mgr# debug show files
total 0
-rw-r--r-- 1 0 Jun 23 16:04 tcpdump.d0.0
```

**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](#)

**export host-tech-support scp**

Exports system diagnostics for the specified host ID to a specific location via Secure Copy Protocol (SCP). You can export system diagnostics for ESX command output from the NSX Manager.

**Synopsis**

```
export host-tech-support <host-Id> scp url
```

Option	Description
<i>url</i>	Enter the username and complete path of the destination. For example, <code>userId@&lt;IpAddress:/path&gt;</code> . Standard scp/ssh syntax is used for username and machine name.

**CLI Mode**

Basic and Privileged

**Example**

```
nsx-mgr# export host-tech-support host-11 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 running-config**

Shows the current running configuration.

**Synopsis**

show running-config

**CLI Mode**

Basic, Privileged

**Example**

```
nsx?mgr# show running-config
Building configuration...

Current configuration:
!
ntp server 192.168.110.1
!
ip name server 192.168.110.10
!
hostname nsxmgr-01a
!
interface mgmt
  ip address 192.168.110.15/24
!
ip route 0.0.0.0/0 192.168.110.1
!
web-manager
```

**Related Commands**

```
copy running-config startup-config
show startup-config
```

**show startup-config**

Shows the startup configuration.

**Synopsis**

show startup-config

**CLI Mode**

Basic, Privileged

**Example**

```
nsx?mgr# show startup-config
```

```

Startup Configuration:
!
ntp server 192.168.110.1
!
ip name server 192.168.110.10
!
! Configuration saved
! 2017/01/06 22:35:41
!
hostname nsxmgr-01a
!
interface mgmt
 ip address 192.168.110.15/24
!
ip route 0.0.0.0/0 192.168.110.1
!
web-manager

```

### Related Commands

```

copy running-config startup-config
show running-config

```

## 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

```

nsx?mgr# 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.
hash	Masks the password by using the MD5 hash.
plaintext	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**

```
nsx-mgr(config)# no web-manager
Stopping the web manager ...
OK
nsx-mgr(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 31
- [“Central Common Commands”](#) on page 32
- [“Central Controller Commands”](#) on page 34
- [“Central Logical Router Commands”](#) on page 34
- [“Central Logical Switch Commands”](#) on page 47
- [“Central Distributed Firewall Commands”](#) on page 56
- [“Central NSX Edge Commands”](#) on page 62
- [“Central NSX Packet Capture Commands”](#) on page 80

## 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	show controller list all
host	Show all clusters: show cluster all Then show hosts in a specific cluster: show cluster <i>clusterID</i> Or show all hosts associated with a specific logical router: show logical-router list dlr <i>dlrID</i> host
switch	show logical-switch list all
dlr	show logical-router list all

**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 Status	Cluster Id	Datacenter Name	Firewall
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 host *hostID* health-status

Shows health status of the specified host as HEALTHY/UNHEALTHY/CRITICAL/WARNING.

### Synopsis

show host *hostID* health-status

### CLI Mode

Basic

### Example

```
nsx-mgr> show host host-29 health-status
Status: HEALTHY
```

```
nsx-mgr> show host host-32 health-status
Status: UNHEALTHY
```

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

**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 13880000000a 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:          13880000000a
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 Interface	Gateway	Flags	Ref	Origin	UpTime
-----	-----	-----	-----	---	-----	-----
0.0.0.0	0.0.0.0 1388000000002	192.168.10.1	UG	1	AUTO	272883
172.16.10.0	255.255.255.0 138800000000a	0.0.0.0	UCI	1	MANUAL	273214
172.16.20.0	255.255.255.0 138800000000b	0.0.0.0	UCI	1	MANUAL	273241
172.16.30.0	255.255.255.0 138800000000c	0.0.0.0	UCI	3	MANUAL	273241
192.168.10.0	255.255.255.248 1388000000002	0.0.0.0	UCI	1	MANUAL	273214
192.168.100.0	255.255.255.0 1388000000002	192.168.10.1	UG	1	AUTO	7017

### 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

```

## show logical-router resolve

Shows information about next destination that a logical router will choose when you have configured the logical router with ECMP.

**For example:** You have four NSX Edges. On host-28, you have a source VM 172.17.10.11 that is trying to route to destination 192.168.110.10, and you want to know which of the four NSX Edges will be the next hop for this traffic.

**Synopsis**

```
show logical-router resolve host hostID dlr show logical-router resolve host hostID dlr
{logical router name} destip {IP of the destination resource} scrip {IP of
the VM which generates the traffic}
```

**CLI Mode**

Basic

**Example**

```
nsx-mgr> show logical-router resolve host host-28 dlr default+edge-2 destip
192.168.110.10 srcip 172.17.10.11
```

VDR default+edge-2 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	192.168.5.1	UG	1 AUTO	57	138800000002

## 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.unkown: 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
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 icmp type 136 from any to any accept;
  rule 1003 at 2 inout protocol ipv6-icmp icmp type 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>
<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 Address Resolution Protocol (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* arp-filter

Displays the ARP packet filter rules that specify what to do with a packet that matches. See [show arp](#) for an example.

### Synopsis

```
show edge edgeID arp-filter
```

### CLI Mode

Basic

### Example

```
nsx-mgr>show edge edge-1 arp-filter
```

```
haIndex:                0
```

```
vShield Edge ARP Filter Table:
```

```
Chain IN (policy ACCEPT 2539 packets, 71092 bytes)
```

pkts	bytes	target	in	out	source-ip	destination-ip	source-hw
destination-hw		hlen	op	hrd	pro		

Chain OUT (policy ACCEPT 0 packets, 0 bytes)

pkts	bytes	target	in	out	source-ip		destination-ip	source-hw
destination-hw			hlen	op	hrd	pro		

Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)

pkts	bytes	target	in	out	source-ip		destination-ip	source-hw
destination-hw			hlen	op	hrd	pro		

#### Related Commands

`show arp`  
`show edge edgeID 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 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 highavailability connection-sync

Displays high availability (HA) connection sync-up status information. For example, statistics about current active connections of both local and peer device.

### Synopsis

```
show edge edgeID service highavailability connection-sync
```

### CLI Mode

Basic

### Example

```
nsx-mgr>show edge edge-1 service highavailability connection-sync
```

```

haIndex:          0
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):
          3432 Bytes sent      3360 Bytes recv
          221 Pckts sent      210 Pckts recv
          0 Error send        0 Error recv

message tracking:
          0 Malformed msgs      0 Lost msgs

```

### Related Commands

[show service highavailability](#)

[show edge \*edgeID\* service highavailability](#)



## show edge *edgeID* service highavailability link

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

### Synopsis

```
show edge edgeID service highavailability link
```

### CLI Mode

Basic

### Example

```
nsx-mgr>show edge edge-1 service highavailability link
```

haIndex: 0

Local IP Address: 169.254.1.1/30

Peer IP Address: 169.254.1.2/30

### Related Commands

[show service highavailability](#)

[show edge \*edgeID\* service highavailability](#)

[show edge \*edgeID\* service highavailability connection-sync](#)

## 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](#)

## Central NSX Packet Capture Commands

The central packet capture commands allow you to issue packet capture on the NSX Manager from the NSX Manager command line. You can also stop the capture using the CLI command, and transfer the packet capture file.

Optional parameters for packet capture commands are “Filters” used for pktcap-uw on ESX host.

These filters are advanced feature for the central packet capture commands, and is only recommended to be used by users who are familiar with pktcap-uw on ESX host.

**NOTE** The packet capture central CLI commands requires vSphere 5.5U3 or higher. These commands are not supported on earlier vSphere 5.5 releases.

### Capture vNic

Captures packets for a specific VM vNic. Direction has two options, input and output.

Input is for traffic going into vNic, and output is for traffic going out from vNic.

**Synopsis**

```
debug packet capture host < host-id > vnic <vnic-id> dir <direction> parameters [optional parameters]
```

**CLI Mode**

Privileged

**Example**

```
nsx-mgr# debug packet capture host host-32 vnic 502e71fa-1a00-759b-e40f-ce778e915f16.000
dir input parameters
Session: 7cfcb12e-4245-4c08-99ff-5cda50e80b76
Request:
  Capture host: host-32
  vnic: 502e71fa-1a00-759b-e40f-ce778e915f16.000
  Capture point: vnic
  Capture direction: input
Session file: /tmp/pktcap/7cfcb12e-4245-4c08-99ff-5cda50e80b76.pcap
Session status: started
```

### Capture pNic

Captures packets for a specific physical Nic. Direction has two options, input and output.

Input is for traffic going into pNic, and output is for traffic going out from pNic.

**Synopsis**

```
debug packet capture host <host-id> vmnic <vmnic-name> dir <direction> parameters [optional parameters]
```

**CLI Mode**

Privileged

**Example**

```

nsx-mgr# debug packet capture host host-32 vmnic vmnic1 dir input parameters
Session: 7cfc12e-4245-4c08-99ff-5cda50e80b76
Request:
    Capture host: host-32
    Vnic: vmnic1
    Capture point: vnic
    Capture direction: input
Session file: /tmp/pktpcap/7cfc12e-4245-4c08-99ff-5cda50e80b76.pcap
Session status: started

```

**Capture vdrPort**

Captures packets for a specific port of virtual distributed router (vDR). Direction has two options, input and output.

Input is for traffic going into vDR, and output is for traffic going out from vDR.

**Synopsis**

```

debug packet capture host <host-id> vdrport dir <direction> parameters [optional
parameters]

```

**CLI Mode**

Privileged

**Example**

```

nsx-mgr# debug packet capture host host-32 vdrport dir input parameters
Session: f3a74117-e99c-4ad0-82f4-89aa7f04af7a
Request:
    Capture host: host-32
    Capture point: vdrport
    Capture direction: input
Session file: /tmp/pktpcap/f3a74117-e99c-4ad0-82f4-89aa7f04af7a.pcap
Session status: started

```

**Capture VMKNic**

Captures packets for a specific VM KNic. Direction has two options, input and output.

Input is for traffic going into VMKNic, and output is for traffic going out from VMKNic.

**Synopsis**

```

debug packet capture host <host-id> vmknick <vmknick-name> dir <direction> parameters
[optional parameters]

```

**CLI Mode**

Privileged

**Example**

```

nsx-mgr# debug packet capture host host-32 vmknick vmk0 dir input parameters
Session: f0142774-54ec-4a63-9f18-49185e65480e
Request:
    Capture host: host-32
    Vmknick: vmk0
    Capture point: vmknick
    Capture direction: input
Session file: /tmp/pktpcap/f0142774-54ec-4a63-9f18-49185e65480e.pcap
Session status: started

```

## Delete packet capture session

Deletes a specific packet capture session.

### Synopsis

```
debug packet capture clear session <capture-id>
```

### CLI Mode

Privileged

### Example

```
nsx-mgr# debug packet capture clear session 7cfcb12e-4245-4c08-99ff-5cda50e80b76
```

```
Session: 7cfcb12e-4245-4c08-99ff-5cda50e80b76
```

```
Request:
```

```
    Capture host: host-32
```

```
    Vnic: 502e71fa-1a00-759b-e40f-ce778e915f16.000
```

```
    Capture point: vnic
```

```
    Capture direction: input
```

```
Session file: /tmp/pktpcap/7cfcb12e-4245-4c08-99ff-5cda50e80b76.pcap
```

```
Session status: deleted
```

## Show all packet capture sessions

Shows details of all packet capture sessions.

### Synopsis

```
show packet capture sessions
```

### CLI Mode

Privileged

### Example

```
nsx-mgr# show packet capture sessions
```

```
Session: 7cfcb12e-4245-4c08-99ff-5cda50e80b76
```

```
Request:
```

```
    Capture host: host-32
```

```
    Vnic: 502e71fa-1a00-759b-e40f-ce778e915f16.000
```

```
    Capture point: vnic
```

```
    Capture direction: input
```

```
Session file: /tmp/pktpcap/7cfcb12e-4245-4c08-99ff-5cda50e80b76.pcap
```

```
Session status: started
```

```
=====
```

```
Started session: 1
```

```
Stopped session: 0
```

```
Finished session: 0
```

```
Error session: 0
```

```
Sessions:
```

## Show packet capture session

Shows a specific packet capture session.

### Synopsis

```
show packet capture session <capture-id>
```

**CLI Mode**

Privileged

**Example**

```

nsx-mgr# show packet capture session 7cfc12e-4245-4c08-99ff-5cda50e80b76
Session: 7cfc12e-4245-4c08-99ff-5cda50e80b76
Request:
    Capture host: host-32
    Vnic: 502e71fa-1a00-759b-e40f-ce778e915f16.000
    Capture point: vnic
    Capture direction: input
Session file: /tmp/pktpcap/7cfc12e-4245-4c08-99ff-5cda50e80b76.pcap
Session status: started

```

**Show packet capture file content**

Shows the packet capture file content.

**Synopsi**

*debug packet capture display session <capture-id> parameters [optional parameters]*

**CLI Mode**

Privileged

**Example**

```

nsx-mgr# debug packet capture display session f3a74117-e99c-4ad0-82f4-89aa7f04af7a parameters
Session: f3a74117-e99c-4ad0-82f4-89aa7f04af7a
Request:
    Capture host: host-32
    Capture point: vdrport
    Capture direction: input
    Capture point: vdrport
    Capture direction: input
Session file: /tmp/pktpcap/2f118862-c1c2-432c-acb2-208936cd753e.pcap
Session status: finished
Capture packets:
reading from file /tmp/pktpcap/2f118862-c1c2-432c-acb2-208936cd753e.pcap, link-type EN10MB (Ethernet)
11:10:13.140734 ARP, Reply 192.168.100.12 is-at 00:50:56:ac:d2:eb (oui Unknown), length 46
11:10:13.143346 IP 192.168.100.12 > 192.168.100.11: ICMP echo reply, id 8449, seq 0, length 64
11:10:14.130603 IP 192.168.100.12 > 192.168.100.11: ICMP echo reply, id 8449, seq 1, length 64

```

**Stop packet capture session**

Stops a specific packet capture session.

**Synopsis**

no debug packet capture session <capture-id>

**CLI Mode**

Privileged

**Example**

```

nsx-mgr# no debug packet capture session 7cfc12e-4245-4c08-99ff-5cda50e80b76

```

```

Session: 7cfcb12e-4245-4c08-99ff-5cda50e80b76
Request:
    Capture host: host-32
    Vnic: 502e71fa-1a00-759b-e40f-ce778e915f16.000
    Capture point: vnic
    Capture direction: input
Session file: /tmp/pktpcap/7cfcb12e-4245-4c08-99ff-5cda50e80b76.pcap
Session status: finished

```

## Stop packet capture session and discard

Stops a specific packet capture session, and also discards the session.

### Synopsis

```
no debug packet capture session <capture-id>
```

### CLI Mode

Privileged

### Example

```

nsx-mgr# no debug packet capture session 7cfcb12e-4245-4c08-99ff-5cda50e80b76 discard
Session: 7cfcb12e-4245-4c08-99ff-5cda50e80b76
Request:
    Capture host: host-32
    Vnic: 502e71fa-1a00-759b-e40f-ce778e915f16.000
    Capture point: vnic
    Capture direction: input
Session file: /tmp/pktpcap/7cfcb12e-4245-4c08-99ff-5cda50e80b76.pcap
Session status: deleted

```

## Transfer packet capture file

Transfers the packet capture file content to user's computer. Shows the file content to user when the transfer is complete and file is ready.

### Synopsi

```
debug packet capture scp session <capture-id> url <user@url:file>
```

### CLI Mode

Privileged

### Example

```

nsx-mgr# debug packet capture scp session f3a74117-e99c-4ad0-82f4-89aa7f04af7a
url admin@10.162.210.4:newfile
Session: f3a74117-e99c-4ad0-82f4-89aa7f04af7a
Request:
    Capture host: host-32
    Capture point: vdrport
    Capture direction: input
    Capture point: vdrport
    Capture direction: input

```



```
Session file: /tmp/pktpcap/2f118862-c1c2-432c-acb2-208936cd753e.pcap
Session status: finished
Begin SCP:
The authenticity of host '10.162.210.4 (10.162.210.4)' can't be established.
RSA key fingerprint is SHA256:BGiCwphuw1gu97dZ83q9BZW/UEy07GEkwCse+kfBJyA.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.162.210.4' (RSA) to the list of known hosts.
user@10.162.210.4's password:
```



# 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.

**NOTE:** Do not use this command to clear SAs manually. Doing so may put the Edge Services Gateway VPN connection in an inconsistent state. To clear the SAs, disable the IPsec service. For more information on how to disable IPsec service, refer to *NSX Administration Guide*.

### Synopsis

```
clear service ipsec sa name
```

**CLI Mode**

Privileged

**Example**

```
nsx-edge # clear service ipsec sa 10.0.0.1_1.1.1.0/24-100.0.0.1_2.2.2.0/24
```

NOTE: You can find out the connection name from output of the "[show service ipsec site](#)" command.

**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
intif   extif	The specific NSX Edge interface from which to capture packets.
<i>expression</i>	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
<i>intName</i>	The specific interface from which to capture packets.
<i>expression</i>	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   sourceAddress</i>	The hostname or internal IP address of a virtual machine protected by an NSX Edge.
<i>destHostname   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 you can specify the following:

Size: The data packet size (not including the ICMP header) and “don’t fragment” flag. Enter CTRL+C to end ping replies.

Count: Stop after sending count *ECHO\_REQUEST* packets, that you'd like to be recorded and displayed.

Timeout: Time to wait for a response, in seconds.

### Synopsis

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

### CLI Mode

Basic, Privileged

### Example

```
NSX-edge> 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

NSX-edge> ping ip 192.168.110.10 count 2
PING 192.168.110.10 (192.168.110.10) 56(84) bytes of data.
64 bytes from 192.168.110.10: icmp_seq=1 ttl=125 time=1.18 ms
64 bytes from 192.168.110.10: icmp_seq=2 ttl=125 time=1.20 ms

NSX-edge> ping ip 192.168.110.10 timeout 1
```

## 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" : [
            "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,
          "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"
      }
    }
  ],
  "gs1b" : {
    "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 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,
          "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
gs1b           : 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 conntrack
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 bytes**

Shows 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 pkts**

Shows 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 bytes**

Shows 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 pkts**

Shows 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_conntrack_tcp_timeout_syn_sent = 30
nf_conntrack_tcp_timeout_syn_recv = 30
nf_conntrack_tcp_timeout_established = 3600
nf_conntrack_tcp_timeout_fin_wait = 20
nf_conntrack_tcp_timeout_close_wait = 60
nf_conntrack_tcp_timeout_last_ack = 30
nf_conntrack_tcp_timeout_time_wait = 20
nf_conntrack_tcp_timeout_close = 10
nf_conntrack_udp_timeout = 30
nf_conntrack_udp_timeout_stream = 30
nf_conntrack_icmp_timeout = 10
nf_conntrack_icmpv6_timeout = 30
nf_conntrack_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
  NSSA Translator Role: Always
  NSSA Translator State: Disable
  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&gt; 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&gt; 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: O - 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: O - 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: O - 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: O - 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

```
O  E2  60.60.60.0/24          [110/1]          via 50.50.50.3
O  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
ambsmmp.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.

### Synopsis

```
show 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 S<     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
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 recv
    4676 Pckts sent                 4673 Pckts recv
    0 Error send                     0 Error recv

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
Tx Packet drop : 0
Rx Packet drop : 0
Encryption Cipher : AES128-GCM-SHA256
```

**show service l2vpn (on server)**

Shows the L2 VPN server status and the tunnel information.

**Synopsis**

```
show service l2vpn
```

**CLI Mode**

Basic

**Example**

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

```
L2 VPN type      : Server
Tunnel Information :
```

CONN ID	SITENAME	USERNAME	INTERFACE	UP TIME	CLIENT ESG IP
1	Client1	user1	na1	1:19:12	10.172.65.144
2	SiteOne	s1	na1	12:24:28	10.161.95.11

## show service l2vpn site

Shows the site status for L2 VPN server. You can run this command on both the client and the server.

- On server side, all the sites are displayed (irrespective of tunnel status). You can filter to see information about a particular site using the `show service l2vpn site <sitename>` command. If <sitename> does not exist, then the output will be blank.
- On client side, all the sites are displayed (irrespective of tunnel status). As there is only one site on client side, you cannot filter to see information about a particular site.

### Synopsis

```
show service l2vpn site
```

### CLI Mode

Basic

### Example

```
NSX-edge-1-0> show service l2vpn site
```

SITENAME	INTERFACE	TYPE	VLANID/VNI	TUNNELID
Site One	vNic_10	VLAN	100	10
Site Two	vNic_10	VLAN	100	10

```
NSX-edge-1-0> show service l2vpn site sitename
show service l2vpn site siteone
```

SITENAME	INTERFACE	TYPE	VLANID/VNI	TUNNELID
Site One	vNic_10	VLAN	100	10

## show service l2vpn bridge

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

You can filter the output on the following three parameters.

- `vlan_id: vlan_id=300`
- `mac_addr: mac_addr=00:50:56:bd:1d:ff`
- `interface: interface=vNic_2`

You can use them in combination, separated by two underscores. For example:

```
vlan_id=<vlanid>__interface=<interface>__mac_addr=<macaddr>
```

### Synopsis

```
show service l2vpn bridge
```

### CLI Mode

Basic

### Example

```
NSX-edge-1-0> show service l2vpn bridge
```

bridge name	bridge id	STP enabled	interfaces
br-sub	8000.005056b86b46	no	vNic_2 na1

## List of learned MAC addresses for L2 VPN bridge br-sub

```
-----
```

INTERFACES	MAC ADDR	VLAN ID	ON BRIDGE?	AGING TIMER
vNic_2	00:50:56:bd:1d: f f	4094	yes	0:00
vNic_2	00:50:56:bd:1d: f f	0	yes	0:00
vNic_2	00:50:56:bd:1d: f f	300	yes	0:00
vNic_2	00:50:56:bd:1d: f f	2101	yes	0:00
na1	82:ef:2e:9d:68: 4 f	0	yes	0:00

NSX-edge-1-0> show service l2vpn bridge vlan\_id=300

INTERFACES	MAC ADDR	VLAN ID	ON BRIDGE	AGING TIMER
vNic_2	00:50:56:bd:1d:ff	300	yes	0.00

NSX-edge-1-0>show service l2vpn bridge vlan\_id=300\_\_interface=vNic\_2

INTERFACES	MAC ADDR	VLAN ID	ON BRIDGE	AGING TIMER
vNic_2	00:50:56:bd:1d:ff	300	yes	0.00

NSX-edge-1-0>show service l2vpn bridge vlan\_id=300\_\_mac\_addr=00:50:56:bd:1d:ff

INTERFACES	MAC ADDR	VLAN ID	ON BRIDGE	AGING TIMER
vNic_2	00:50:56:bd:1d:ff	300	yes	0.00

NSX-edge-1-0>show service l2vpn bridge interface=vNic\_2

INTERFACES	MAC ADDR	VLAN ID	ON BRIDGE	AGING TIMER
vNic_2	00:50:56:bd:1d:ff	4094	yes	0.00
vNic_2	00:50:56:bd:1d:ff	0	yes	0.00
vNic_2	00:50:56:bd:1d:ff	300	yes	0.00
vNic_2	00:50:56:bd:1d:ff	2101	yes	0.00

NSX-edge-1-0>show service l2vpn bridge interface=vNic\_2\_\_mac\_addr=00:50:56:bd:1d:ff

INTERFACES	MAC ADDR	VLAN ID	ON BRIDGE	AGING TIMER
vNic_2	00:50:56:bd:1d:ff	4094	yes	0.00
vNic_2	00:50:56:bd:1d:ff	0	yes	0.00
vNic_2	00:50:56:bd:1d:ff	300	yes	0.00
vNic_2	00:50:56:bd:1d:ff	2101	yes	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 conversion-table

**CLI Mode**

Basic

**Example**

```

NSX-edge-1-0> show service l2vpn conversion-table
vid1 vid2 Tag Type action
=====
100 10 VLAN TO_VLAN

Egress VLAN Entries
vid1 vid2 Tag Type action
=====
10 100 VLAN TO_VLAN

VXLAN Table Entries
vid1 vid2 Tag Type action
=====

```

**show service l2vpn ebttables**

*ebtables* is an application program used to set up and maintain the tables of rules that inspect Ethernet frames. To view these rules, run the *ebtables* command.

**Synopsis**

```
show service l2vpn ebttables
```

**CLI Mode**

Basic

**Example**

```

NSX-edge-1-0> show service l2vpn ebttables
Bridge table: filter

Bridge chain: INPUT, entries: 2, policy: ACCEPT
-i na1 -j chain_na1
-i vNic_2 -j chain_vNic_2

Bridge chain: FORWARD, entries: 4, policy: ACCEPT
-o na1 -j chain_na1
-i na1 -j chain_na1
-o vNic_2 -j chain_vNic_2
-i vNic_2 -j chain_vNic_2

Bridge chain: OUTPUT, entries: 2, policy: ACCEPT
-o na1 -j chain_na1
-o vNic_2 -j chain_vNic_2

Bridge chain: chain_vNic_2, entries: 12, policy: ACCEPT
-p 802_1Q -o vNic_2 --vlan-id 300 -j ACCEPT
-p 802_1Q -i vNic_2 --vlan-id 300 -j ACCEPT
-p 802_1Q -o vNic_2 --vlan-id 4094 -j ACCEPT
-p 802_1Q -i vNic_2 --vlan-id 4094 -j ACCEPT
-p 802_1Q -o vNic_2 --vlan-id 2101 -j ACCEPT
-p 802_1Q -i vNic_2 --vlan-id 2101 -j ACCEPT
-i vNic_2 -j DROP
-o vNic_2 -j DROP
-i vNic_2 -j DROP
-o vNic_2 -j DROP
-i vNic_2 -j DROP
-o vNic_2 -j DROP

Bridge chain: chain_na1, entries: 4, policy: ACCEPT
-p 802_1Q -o na1 --vlan-id 2101 -j ACCEPT

```

```
-p 802_1Q -i na1 --vlan-id 2101 -j ACCEPT
-i na1 -j DROP
-o na1 -j DROP
```

## 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

### 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	1
05	VNIC_5	0
06	VNIC_9	0
07	VDR	0

## show service loadbalancer

Shows overall current loadbalancer engine state.

### Synopsis

```
show service loadbalancer
```

### CLI Mode

Basic

### Example

Loadbalancer Services Status:

```
L7 Loadbalancer      : stopped
```

```
-----
L7 Loadbalancer Statistics:
```

STATUS	PID	CONN_RATE_LIMIT	MAX_MEM_MB	MAX SOCK	MAX_CONN	MAX_PIPE	CUR_CONN	CONN_RATE
stopped	0	0	0	0	0	0	0	0

```
-----
L4 Loadbalancer Statistics:
```

MAX_CONN	ACT_CONN	INACT_CONN	TOTAL_CONN
0	0	0	0

```
Prot LocalAddress:Port Scheduler Flags
```

```
-> RemoteAddress:Port Forward weight ActiveConn InActConn
```

## show service loadbalancer error

Shows recent loadbalancer errors.

### Synopsis

```
show service loadbalancer error
```

### CLI Mode

Basic

### Example

```
L7 Loadbalancer      : stopped
```

## show service loadbalancer monitor

Shows health of specified monitor.

### Synopsis

```
show 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
-----
tcp        0      0 127.0.0.1:2601          0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.1:10000         0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.1:10001         0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:179             0.0.0.0:*               LISTEN
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.1:15000         0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.1:2812          0.0.0.0:*               LISTEN
tcp        0      0 127.0.0.1:18566         127.0.0.1:10000        ESTABLISHED
tcp        0      0 192.168.101.3:22        192.168.110.10:51116    ESTABLISHED
tcp        0      0 127.0.0.1:36905         127.0.0.1:10001        ESTABLISHED
tcp        0      0 192.168.101.3:50522     192.168.101.2:179      ESTABLISHED
tcp        0      0 127.0.0.1:10000         127.0.0.1:18566        ESTABLISHED
tcp        0      0 192.168.10.2:179        192.168.10.6:50726     ESTABLISHED
tcp        0      0 127.0.0.1:10001         127.0.0.1:36905        ESTABLISHED
udp        0      0 127.0.0.1:514           0.0.0.0:*
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-ng.ctl
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

```

# 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
```

**fips enable**

Enable FIPS mode for the standalone edge. You must reboot standalone edge after committing the changes.

**Synopsis**

```
fips enable
```

**CLI Mode**

Configuration

**Example**

```
nsx-l2vpn-edge# configure terminal
```

```
nsx-l2vpn-edge(config)# fips enable
```

```
nsx-l2vpn-edge(config)# commit
```

**Related Commands**

```
configure terminal
```

```
commit
```

```
fips disable
```

## fips disable

Disable FIPS mode for the standalone edge. You must reboot standalone edge after committing the changes.

### Synopsis

```
fips disable
```

### CLI Mode

Configuration

### Example

```
nsx-l2vpn-edge# configure terminal
nsx-l2vpn-edge(config)# fips disable
nsx-l2vpn-edge(config)# commit
```

### Related Commands

```
configure terminal
commit
fips enable
```

## 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-l2vpn-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-l2vpn-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-l2vpn-edge(config)# l2vpn
nsx-l2vpn-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.

**Synopsis**

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-l2vpn-edge(config)# password admin
```

**proxy address**

Set the proxy IP address and port.

**Synopsis**

proxy address *ipAddress portNumber*

**CLI Mode**

L2VPN

**Example**

```
nsx-l2vpn-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-l2vpn-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 all 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 -
      00000000000009f800 (usable)
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 00000000000009f800 -
      000000000000a0000 (reserved)
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 000000000000ca000 -
      000000000000cc000 (reserved)
2015-08-13T21:04:17+00:00 vShieldEdge kernel: BIOS-e820: 000000000000dc000 -
      00000000000100000 (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-l2vpn-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-l2vpn-edge(config)# ssh stop
nsx-l2vpn-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-l2vpn-edge(config)# sub-interface pairs 250:20
```

or

```
nsx-l2vpn-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-l2vpn-edge(config)# sub-interface range 10 15
```

```
nsx-l2vpn-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 l2vpn
```

# NSX Host Commands

---

The chapter includes the following topics:

- [“ESXi CLI Commands”](#) on page 167
- [“DVFilter Commands”](#) on page 173

## 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	Vmknics 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
```

Vmknlic Name	Vmknlic 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* --vmknlic-name *value* --vmknlic-ip *value***

Retrieves VXLAN vmknlic statistics. To retrieve statistics for a specific vmknlic, 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
--vmknlic-name value --vmknlic-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.

**NOTE** Using the NSX Controller CLI commands to enable or disable IPSec is not supported. Use NSX API to enable or disable IPSec. For details, refer to *NSX API Guide*.

## 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          perftest      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 pktpcap-uuid none
show control-cluster logical-switches pkt-cap pktpcap-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 *pktpcap-uw* for supported command arguments. The *pktpcap-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 pktpcap-uuid none
show control-cluster logical-switches pkt-cap pktpcap-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 *pktpcap-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 pktpcap-uuid none
show control-cluster logical-switches pkt-cap pktpcap-uuid display
start control-cluster logical-switches ping
start control-cluster logical-switches pktpcap
```



# 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 187
- [“Replicator Node Command”](#) on page 188
- [“Bindings Commands”](#) on page 189
- [“Host Commands”](#) on page 190
- [“Controller Commands”](#) on page 191
- [“Agent Commands”](#) on page 192

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
torgateway-1                    torgateway1                       true           10.144.137.91
3e5ffd66-448d-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-----
MIIDeCCAMACAEwDQYJKoZIhvcNAQEFBQAwYExCZAJBgNVBAYTA1VTMQswCQYD
VQQIEwJQTEVMBGMA1UECHmMT3B1biB2U3dpdGNoMREwDwyDVQQLewhhd210Y2hj
YTE7MDkGA1UEAxMyTlZlIHh3aXRjaG9hbnRlcnRpdzmljYXRlICgyMDE2IEFW
ciAyOCAMDOxMjYyNSkwHhcNMjYwNDI4MDcxMjI1WhcNMjYwNDI4MDcxMjI1WjCB
gTELMAKGA1UEBhMCMVVMxZAJBgNVBAgTAKNBMRUwEwYDVQQKEwxPCGVuIHZTd210
Y2gxETAPBgNVBASTCHN3aXRjaG9hbnRlcnRpdzmljYXRlICgyMDE2IEFW
Q2VydG1maW50dGUGUG9kdWVMTYgQXByIDY4IDAwOjE0KTCCASIwDQYJKoZIhvcN
AQEBBQADggEPADCCAQoCggEBAlJnziOAJkYLLJmDDEXhv8uAc/4HcJhI1v+kG3I9
H7HXWBxdXTXJ9KLWZ2XV1ltuyjeixicJwmMiv9I0bcyQK+d2wCZ0Tcsbjt+EKW4
LdSUNvaz3ap960dlcozurt4jvkn8TYyteG6hinNvDWig+10sks4QsbCT1RJJMBNy
P9wMB1g86BUizyu3AM3/FrntkvYvjK5NOGSyZYfBpuUz9i7wrc3oaiOyb7LXvgBN
OwysrtjVH6QbAjj56C5M+U3+SJNwB0qzguXXmzyKNVSPRUXfnsvpuxyk1ArkLgh2
Qqk/L8pFBPVRgbxFAWhYPjYM7Vfr0OT3F/64yCpDk5ENKpCCAwEAATANBgkqhkiG
9w0BAQUFAOAQCAQEAJIRkgP4ZW8rNAindvIH3POersgDXsGXx00ws6htSbuH73C4E
1imLsr6FZMt68B4nf9vVRRusxHUMwtX8Y252Mm/ky9ABp0L0qsoz7XCGTumhsn2W
42AwbqowlCstQ+FqyhTXOm4V0TMC4IyknRNNKrOX9jwbqLetDNRFsZuzsX+tiDfw
odDpHQ+7vXOFYNk7jKEhp2s+ju3loJEgwbQxL25xA+bguR9CM0XwLt6/gkTI/7XK
YpS0s4Nuss4RytUiXgE3LOxKy9gkDFLEnz00RH+7FevUX/ueNDhzj2bipKCwxrWT
HZwVA6dvBaZjlwvoAovxoH7NbGCCAoC6neQVYQ==
-----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. Output of the *UtepProbeInterval* parameter is in milliseconds.

#### 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-92fffd46d4af   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 togateway-1 certificate
-----BEGIN CERTIFICATE-----
MIIDeDCCAMACAEwDQYJKoZIhvcNAQEFBQAwYExCZAJBgNVBAYTA1VTMQswCQYD
VQQIEwJQTEVMBGMA1UECHmMT3B1b2U3dWpGNOMREwDwYDVQQLEWhzd210Y2hj
YTE7MDKGA1UEAxMyTlZTIHN3aXRjaG9hIENBIENlcnRpZmljYXRlICgyMDE2IEFW
ciAyOCwMDoxMjYyNSkwHhcNMjYwNDI4MDcxMjI1WhcNMjYwNDI4MDcxMjI1WjCB
gTELMAKGA1UEBhMCVVMxCZAJBgNVBAGTAkNBMRUwEwYDVQQKEwxBG9uIHZTd210
Y2gxETAPBgNVBASTCHN3aXRjaG9hMTswOQYDVQQDEzJPVlMgc3dpdGNoY2EgQ0Eg
Q2VydG1maWNoZGUGKDIwMTYgQXByIDI4IDAwOjE5OjI1KTCCASIwDQYJKoZIhvcN
AQEBBQAdggEPADCCAQoCggEBAlnziOAJlkYYLJmDDEXhv8uAc/4HcJhI1v+kG3I9
H7HXWBxdXTxXJ9KLWZ2XV1ltuyjeixicJwmMiv9I0bcyQK+d2wCZ0Tcsbjt+EKW4
LdSUNvaz3ap960d1cozurt4jvkn8TYyteG6hinNvDWig+10sks4QsbCT1RJJMBNy
P9wMB1g86BUizyu3AM3/FrntkvYvjK5NOGSyZyFBpUuZ9i7wrc3oaiOyb7LXvgBN
OwysrtjVH6Qbajj56c5M+U3+SJNwB0qzguXXmzyKNVSPRUXfnsvpuxyk1ArkLgh2
Qqk/L8pFBPVrgbxfAWHYPjYM7Vfr0OT3F/64yCpDk5ENkPcCAWEAATANBgkqhkiG
9w0BAQUFAOAQCAQEAJIRkgP4Zw8rNAindvIH3POersGDxSGxx00ws6htSbuH73C4E
1imLsr6FZMt68B4nf9vVRRusxHUMwtX8Y252Mm/ky9ABp0L0qsoz7XCGTumhsn2W
42AwbqowlCstQ+FqyhTXOm4V0Tmc4IyknRNNKrOX9jwbqLetDNRFsZuzsx+tidfw
odDpHQ+7vXOFYNk7jKEhp2s+ju3loJEgwbQxL25xA+bguR9CM0XwLt6/gkTI/7XK
YpS0s4Nuss4RytuiXgE3LoxKy9gkDFLEnz00RH+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 togateway-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 gateways mastered by this hardware gateway agent.

Output of the *Bfd Probe Interval* parameter is in milliseconds.

### 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-----
MIIDeDCCAMACAEQwDQYJKoZIhvcNAQEFBQAwYExCZAJBgNVBAYTA1VTMQswCQYD
VQQIEwJQTEVMBGMA1UECHmMT3B1biB2U3dpdGNoMREwDwYDVQLEWhzd210Y2hj
YTE7MDkGA1UEAxMyTlZTIHN3aXRjaG9hIENBIENlcnRpZmljYXRlICgyMDE2IEFW
ciAyOCAMDOxMjoyNSkwHhcNMjYwNDI4MDcxMjI1WhcNMjYwNDI4MDcxMjI1WjCB
gTELMAKGA1UEBhMCVVMxZAJBgNVBAgTAkNBMRUwEwYDVQQKEwxPCGVuIHZTd210
Y2gxETAPBgNVBAStCHN3aXRjaG9hMTswOQYDVQQDEzJPVlMgc3dpdGNoY2EgQ0Eg
Q2VydG1maW9hdGUgKDIwMTYgQXByIDI4IDAuOjE0Y0jI1KTCCASiWdQYJKoZIhvcN
AQEBBQADggEPADCCAQoCggEBAJnzioAjlKYLLJmDDEXhv8uAc/4HcJhI1v+kG3I9
h7HXWBxdXTxXJ9KLWZ2XV1ltuyjeixicJwmMiv9I0bcyQK+d2wCZ0Tcsbjt+EKW4
LdSUNvaz3ap960dlcozurt4jvkn8TYyteG6hinNvDWig+10sks4QsbCT1RJJMBNy
P9wMB1g86BUizyu3AM3/FrntkvYvjK5NOGSyzyfBpUuZ9i7wrc3oai0yb7LxvgBN
OwysrTjvH6QbAjj56C5M+U3+SJNwB0qzguXXmzyKNVsPRUXfNsvpxuyk1ArkLgh2
Qqk/L8pFBPVrgbxfAWHYPjYM7Vfr00T3F/64yCpDk5ENkPcCAWEAATANBgkqhkiG
9w0BAQUFAOAQCAEAJIRkgP4ZW8rNAindvIH3POersgDXsGXx00ws6htSbuH73C4E
1imLsr6FZMt68B4nf9vVRRusxHUMwtX8Y252Mm/ky9ABp0L0qsoz7XCGTumhsn2W
42AwbqowlCstQ+FqyhTXOm4V0Tmc4IyknRNNKr0X9jwbqLetDNRFsZuzsX+tiDfw
OdDpHQ+7vxoFYnk7jKEhp2s+ju3loJEgwbQxL25xA+bguR9CM0XwL6/gkTI/7XK
YpSos4Nuss4RytUiXgE3LOxKy9gkDFLEnz00RH+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
  Destination Mac
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
3e5fffd66-448d-4e54-82ec-92fffd46d4af bindings

    UUID          f04348e8-90b4-3f83-bf2e-82b44a43e55d
    Logical Switch UUID 6c752ceb-b3e9-3bbb-82cb-59c3e19a27bf
    VNI            8823
    Hardware Gateway UUID 3e5fffd66-448d-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 3e5fffd66-448d-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 9-1.** Deprecated Commands

Command
cli ssh allow
clear firewall counters
clear vmwall 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 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
set support key

**Table 9-1.** Deprecated Commands

Command
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 raid
show raid detail
show realms
show syslog
show system events
show system network_connections
show syslog
show vmwall log
show vmwall rules
ssh end
syslog
telnet
vm validation
vm validation log
vmwall log suppression

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