

NSX Command Line Interface Reference

NSX 6.1 for vSphere

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Contents

- About This Book 9

- 1 Introduction to the NSX CLI 11**
 - CLI Command Modes 11
 - Logging In and Out of the CLI 12
 - Syntax Notation Used in this Document 12
 - Moving Around in the CLI 12
 - Getting Help within the CLI 13

- 2 Securing CLI User Accounts 15**
 - CLI User Account Management 15
 - Hardening the CLI of an NSX Virtual Appliance 15
 - Change the admin User Account Password 15
 - Change the CLI Privileged Mode Password 16
 - Add a CLI User Account 16
 - Delete the admin User Account from the CLI 17

- 3 NSX CLI Commands 19**
 - NSX Manager Commands 19
 - configure terminal 19
 - disable 19
 - enable 20
 - enable password 20
 - exit 20
 - export tech-support scp 21
 - hostname 21
 - interface 21
 - ip address 22
 - ip route 22
 - list 23
 - ping 23
 - reset 23
 - quit 24
 - reboot 24
 - set clock 24
 - setup 25
 - show arp 25
 - show clock 25
 - show ethernet 26
 - show filesystem 26
 - show manager log 26
 - show manager log last 27
 - show slots 27
 - show tech-support 28
 - shutdown 28
 - ssh 28
 - terminal length 29
 - terminal no length 29

traceroute 29
 user 30
 write 30
 write erase 31
 write memory 31
 NSX Edge Commands 31
 clear nat counters 31
 clear arp WORD 31
 clear service dhcp lease 31
 clear service ipsec sa 32
 debug packet capture 32
 debug packet display interface 32
 dnslookup *serverName* 32
 dnslookup *serverName* | *address* 33
 debug crashdump 33
 debug packet display interface 33
 export tech-support scp 34
 ping 34
 ping interface addr 34
 show arp 35
 show clock 35
 show configuration 35
 show configuration dhcp 36
 show configuration dns 37
 show configuration firewall 37
 show configuration global 39
 show configuration highavailability 40
 show configuration interface 40
 show configuration ipsec 43
 show configuration ipset 43
 show configuration l2vpn 44
 show configuration loadbalancer 45
 show configuration loadbalancer monitor 47
 Example 47
 show configuration loadbalancer pool *poolName* 48
 Example 48
 show configuration loadbalancer rule *ruleName* 48
 show configuration loadbalancer virtual *virtualServerName* 49
 Example 49
 show configuration nat 49
 show configuration ospf 51
 show configuration static_routing 52
 show configuration syslog 52
 show configuration sslvpn-plus 53
 show fips 53
 show firewall 53
 show firewall flows 53
 show firewall flows top *number* 53
 show firewall flows top *number* sort-by pkts 54
 show firewall flows top *number* sort-by bytes 54
 show firewall rule-id *ID* 54
 show firewall rule-id *ID* flows 54
 show firewall rule-id *ID* flows top *number* 54
 show firewall rule-id *ID* flows top *number* sort-by pkts 54
 show firewall rule-id *ID* flows top *number* sort-by-bytes 55
 show flowtable 55
 show flowtable rule-id *ID* 55

show flowtable rule-id *ID* top *number* 55
show flowtable rule-id *ID* top *number* sort-by pkts 55
show flowtable rule-id *ID* top *number* sort-by bytes 56
show flowtable top *number* 56
show flowtable top *number* sort-by pkts 56
show flowtable top *number* sort-by bytes 56
show hostname 56
show interface 57
show interface *name* 57
show ip bgp 57
show ip bgp neighbors 57
show ip forwarding 58
show ip ospf 58
show ip ospf database 59
show ip ospf database adv-router 59
show ip ospf database asbr-summary 60
show ip ospf database external 60
show ip ospf database network 60
show ip ospf database nssa-external 61
show ip ospf database opaque-area 61
show ip ospf database router 61
show ip ospf database summary 61
show ip ospf interface 62
show ip ospf ne 62
show ip ospf statistics 62
show ip route 63
show ip route ospf 63
show ip route bgp 64
show ip route A.B.C.D/M 64
show log 64
show log follow 65
show log last 65
show log reverse 65
show nat 65
show process 66
show route 66
show service 66
show service l2vpn (on server) 67
show service l2vpn (on client) 67
show service l2vpn bridge 67
show service l2vpn trunk-table 68
show service l2vpn conversion table 68
show service monitor 68
show service monitor service 69
show service dhcp 70
show service dns 70
show service ipsec 71
show service ipsec cacerts 71
show service ipsec certs 71
show service ipsec crls 71
show service ipsec pubkeys 72
show service ipsec sa 72
show service ipsec sp 72
show service highavailability 72
show service highavailability link 72
show service highavailability connection-sync 72
show service loadbalancer 73

- show service loadbalancer monitor *monitorName* 73
- show service loadbalancer pool *poolName* 73
- show service loadbalancer session 74
- show service loadbalancer table 74
- show service loadbalancer virtual *serverName* 74
- show service network connections 74
- show service sslvpn-plus 74
- show service sslvpn-plus stats 75
- show service sslvpn-plus sessions 75
- show service sslvpn-plus tunnels 75
- show system load 75
- show system network-stats 75
- show system cpu 76
- show system log size 76
- show system memory 76
- show system storage 77
- show system uptime 77
- show tech-support 77
- show version 77
- traceroute 77
- NSX Controller Commands 78
 - restart controller 78
 - set control-cluster core log-level *value* 78
 - show control-cluster core 78
 - show control-cluster logical-routers 79
 - show control-cluster logical-routers bridge-mac *logicalRouterID_and/or_bridgeID* 80
 - show control-cluster logical-routers bridges *logicalRouterID_and_bridgeID* 80
 - show control-cluster logical-routers instance *logicalRouterID* 80
 - show control-cluster logical-routers interface *logicalRouterID_and_logicalRouterName* 80
 - show control-cluster logical-routers interface-summary *logicalRouterID* 81
 - show control-cluster logical-routers routes *routerID* 81
 - show control-cluster logical-routers routes *routerID_and_IPaddress_and_prefixLength* 81
 - show control-cluster logical-routers stats 81
 - show control-cluster logical-routers vdr-stats *logicalRouterID* 81
 - show control-cluster startup-nodes 82
 - show control-cluster status 82
 - show network interface 82
- ESXi CLI Commands 83
 - esxcli network vswitch dvs vmware vxlan config stats get 83
 - esxcli network vswitch dvs vmware vxlan config stats set 83
 - esxcli network vswitch dvs vmware vxlan get 83
 - esxcli network vswitch dvs vmware vxlan list --vds-name *value* 83
 - esxcli network vswitch dvs vmware vxlan network list --vds-name *value* vxlan-id *value* 84
 - esxcli network vswitch dvs vmware vxlan network arp list --vds-name *value* --vxlan-id *value* 84
 - esxcli network vswitch dvs vmware vxlan network arp reset -vds-name *value* --vxlan-id *value* 84
 - esxcli network vswitch dvs vmware vxlan network mac list --vds-name *value* --vxlan-id *value* 84
 - esxcli network vswitch dvs vmware vxlan network mac reset --vxlan-id *value* --vdsport-id *value* 85
 - esxcli network vswitch dvs vmware vxlan network port list --vds-name *value* --vdsport-id *value* --vxlan-id *value* 85
 - esxcli network vswitch dvs vmware vxlan network port stats list --vds-name *value* --vdsport-id *value* --vxlan-id *value* 85
 - esxcli network vswitch dvs vmware vxlan network stats list --vdsd-name *value* --vxlan-id *value* 85
 - esxcli network vswitch dvs vmware vxlan network stats reset --vxlan-id *value* --vdsport-id *value* 86
 - esxcli network vswitch dvs vmware vxlan network vtep list --vds-name *value* --vxlan-id *value* --segment-id *value* --vtep-ip *value* 86
 - esxcli network vswitch dvs vmware vxlan vmknic list --vds-name *value* --endpoint-id *value* --vmknic-name *value* --vmknic-ip *value* 87

esxcli network vswitch dvs vmware vxlan vmknic multicastgroup list --vds-name <i>value</i> --vmknic-id <i>value</i> --vmknic-name <i>value</i> --vmknic-ip <i>value</i>	87
esxcli network vswitch dvs vmware vxlan stats list --vds-name <i>value</i> --endpoint-id <i>value</i> --vmknic-name <i>value</i> --vmknic-ip <i>value</i>	87
esxcli network vswitch dvs vmware vxlan stats reset --vds-name <i>value</i>	88
DVFilter Commands	88
summarize-dvfilter	88
Deprecated Commands	89

Index	93
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About This Book

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

Intended Audience

This guide is intended for anyone who wants to install or use NSX in a VMware vCenter environment. The information in this guide is written for experienced system administrators who are familiar with virtual machine technology and virtual datacenter operations. This guide assumes familiarity with VMware Infrastructure 4.x, 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 Administration Guide*
- *NSX Installation and Upgrade Guide*
- *NSX API Programming Guide*

Introduction to the NSX CLI

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

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

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

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

This chapter includes the following topics:

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

CLI Command Modes

The commands available to you at any given time depend on the mode you are currently in.

NOTE NSX Edge virtual machines have Basic mode only.

- **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. To save configuration changes you have made in Privileged mode, you must run the write memory command. Otherwise, the changes are lost upon reboot.
- **Configuration.** Configuration mode commands allow you to change the current configuration of utilities on an NSX virtual appliance. You can access Configuration mode from Privileged mode. From Configuration mode, you can enter Interface configuration mode.
- **Interface Configuration.** Interface Configuration mode commands allow you to change the configuration of virtual machine interfaces. For example, you can change the IP address and IP route for the management port of the NSX Manager.

Logging In and Out of the CLI

Before you can run CLI commands, you must initiate a console session 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.

You can also use SSH to access the CLI. If you did not enable SSH while installing NSX Manager, you can use the ssh command to enable and disable the SSH service on an NSX virtual appliance. See “ssh” on page 28.

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 A.B.C.D (option1 | option2) <0-512> [WORD]

- Required numerical ranges are enclosed in angle brackets.
- Required text is presented in all capital letters.
- Multiple, required keywords or options are enclosed in parentheses and separated by a pipe character.
- An optional keyword or value is enclosed in square brackets.

Moving Around in the 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.

Keystrokes	Description
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 CLI

The CLI contains the following commands to assist you.

Command	Description
?	Moves the pointer to the beginning of the line.
sho?	Displays a list of commands that begin with a particular character string.
exp+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.

Securing CLI User Accounts

Each NSX virtual appliance comes with a default user account and password.

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

This chapter includes the following topics:

- [“CLI User Account Management”](#) on page 15
- [“Hardening the CLI of an NSX Virtual Appliance”](#) on page 15
- [“Add a CLI User Account”](#) on page 16
- [“Delete the admin User Account from the CLI”](#) on page 17

CLI User Account Management

You must manage CLI user accounts separately on each NSX virtual appliance. By default, you use the admin user account to log in to the CLI of each NSX virtual appliance.

The Privileged mode password is managed separately from the admin user account password. The default Privileged mode password is the same for each CLI user account.

IMPORTANT Each NSX virtual appliance has a built-in CLI user account (nobody) for system use. Do not delete or modify this account. If this account is deleted or modified, the virtual machine will not work.

You can create new CLI user accounts. Each created user account has administrator-level access to the CLI.

Hardening the CLI of an NSX Virtual Appliance

To harden access to the CLI of an NSX virtual appliance, you must change the admin user account and Privileged mode passwords after initial login.

Change the admin User Account Password

To change the admin user account password

- 1 Log in to the vSphere Client and select an NSX virtual appliance from the inventory.
- 2 Click the **Console** tab to open a CLI session.
- 3 Log in to the CLI and switch to Privileged mode.

```
manager> enable
password:
manager#
```
- 4 Switch to Configuration mode.

- ```
manager# configure terminal
```
- 5 Change the admin account password.
 

```
manager(config)# cli password PASSWORD
```

 where PASSWORD is replaced with the new password you want to use.
  - 6 Save the configuration.
 

```
manager(config)# write memory
Building Configuration...
Configuration saved.
[OK]
```

## Change the CLI Privileged Mode Password

You can change the Privileged mode password to secure access to the configuration options of the CLI.

### To change the Privileged mode password

- 1 Log in to the vSphere Client and select an NSX virtual appliance from the inventory.
- 2 Click the **Console** tab to open a CLI session.
- 3 Log in to the CLI and switch to Privileged mode.

```
manager> enable
password:
manager#
```

- 4 Switch to Configuration mode.

```
manager# configure terminal
```

- 5 Change the Privileged mode password.

```
manager(config)# enable password PASSWORD
```

- 6 Save the configuration.

```
manager(config)# write memory
Building Configuration...
Configuration saved.
[OK]
```

- 7 Run the exit command twice to log out of the CLI.

```
manager(config)# exit
manager# exit
```

- 8 Log in to the CLI and switch to Privileged mode by using the new password.

```
manager> enable
password:
manager#
```

## Add a CLI User Account

You can add CLI user accounts for each NSX virtual appliance.

### To add a CLI user account

- 1 Log in to the vSphere Client and select an NSX virtual appliance from the inventory.
- 2 Click the **Console** tab to open a CLI session.
- 3 Log in by using the admin account.

```
manager login: admin
password:
manager>
```



- 4 Switch to Privileged mode.

```
manager> enable
password:
manager#
```

- 5 Switch to Configuration mode.

```
manager# configure terminal
```

- 6 Add a user account.

```
manager(config)# user abc password plaintext PASSWORD
```

where abc is replaced with the username and PASSWORD is replaced with the desired password.

- 7 Save the configuration.

```
manager(config)# write memory
Building Configuration...
Configuration saved.
[OK]
```

- 8 Exit the CLI.

```
manager(config)# exit
manager# exit
```

## Delete the admin User Account from the CLI

Do not delete the admin user account until you add a user account to replace the admin account. This prevents you from being locked out of the CLI.

### To delete the admin user account

- 1 Log in to the vSphere Client and select an NSX virtual appliance from the inventory.

- 2 Click the **Console** tab to open a CLI session.

- 3 Log in by using a user account other than admin.

- 4 Switch to Privileged mode.

```
manager> enable
password:
manager#
```

- 5 Switch to Configuration mode.

```
manager# configure terminal
```

- 6 Delete the admin user account.

```
manager(config)# no user admin
```

- 7 Save the configuration.

```
manager(config)# write memory
Building Configuration...
Configuration saved.
[OK]
```

- 8 Run the exit command twice to log out of the CLI.

```
manager(config)# exit
manager# exit
```



# NSX CLI Commands

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The chapter includes the following topics:

- [“NSX Manager Commands”](#) on page 19
- [“NSX Edge Commands”](#) on page 31
- [“NSX Controller Commands”](#) on page 78
- [“ESXi CLI Commands”](#) on page 83
- [“DVFilter Commands”](#) on page 88
- [“Deprecated Commands”](#) on page 89

## NSX Manager Commands

This section describes NSX Manager CLI commands.

### configure terminal

Switches to Configuration mode from Privileged mode.

#### Synopsis

```
configure terminal
```

#### CLI Mode

Privileged

#### Example

```
vShield# configure terminal
vShield(config)#
```

#### Related Commands

[interface](#)

### disable

Switches to Basic mode from Privileged mode.

#### Synopsis

```
disable
```

#### CLI Mode

Basic

**Example**

```
vShield# disable
vShield>
```

**Related Commands**

[enable](#)

**enable**

Switches to Privileged mode from Basic mode.

**Synopsis**

```
enable
```

**CLI Mode**

Basic

**Example**

```
vShield> enable
password:
vShield#
```

**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                                       |
|----------|---------------------------------------------------|
| PASSWORD | Password to use. The default password is default. |

**CLI Mode**

Configuration

**Example**

```
vShield# configure terminal
vShield(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**

```
vShield(config-if)# exit
vShield(config)# exit
vShield#
```

**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                                                                                                              |
|--------|--------------------------------------------------------------------------------------------------------------------------|
| URL    | 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**

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

**hostname**

Changes the host name of the machine, which is used as the CLI prompt. The default prompt name for the NSX Manager is `manager`.

**Synopsis**

```
hostname WORD
```

| Option | Description         |
|--------|---------------------|
| WORD   | Prompt name to use. |

**CLI Mode**

Configuration

**Example**

```
vShield(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**

```
vShield# configure terminal
vShield(config)# interface mgmt
vShield(config-if)#
```

or

```
vShield(config)# no interface mgmt
```

**ip address**

Assigns an IP address to an interface. On the NSX virtual machines, 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 A.B.C.D/M
```

| Option  | Description         |
|---------|---------------------|
| A.B.C.D | IP address to use.  |
| M       | Subnet mask to use. |

**CLI Mode**

Interface Configuration

**Example**

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

or

```
vShield(config)# interface mgmt
vShield(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 A.B.C.D/M W.X.Y.Z
```

| Option  | Description                    |
|---------|--------------------------------|
| A.B.C.D | IP address to use.             |
| M       | Subnet mask to use.            |
| W.X.Y.Z | IP address of network gateway. |

**CLI Mode**

Configuration

**Example**

```
vShield# configure terminal
vShield(config)# ip route 0.0.0.0/0 192.168.1.1

or

vShield(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**

```
NSXMgr> list
enable
exit
list
ping WORD
...
```

**ping**

Pings a destination by its hostname or IP address.

**Synopsis**

ping (HOSTNAME | A.B.C.D)

| Option             | Description                                      |
|--------------------|--------------------------------------------------|
| HOSTNAME   A.B.C.D | The hostname or IP address of the target system. |

**CLI Mode**

Basic, Privileged

**Usage Guidelines**

Enter CTRL+C to end ping replies.

**Example**

```
vShield# ping 192.168.1.1
```

**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](#)

**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**

```
vShield(config-if)# quit
vShield(config)#
```

**Related Commands**

[exit](#)

**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           |
|----------|-----------------------|
| HH:MM:SS | Hours:minutes:seconds |
| MM       | Month                 |
| DD       | Day                   |
| YYYY     | Year                  |

**CLI Mode**

Privileged



**Example**

```
vShield# show clock
Mon Apr 7 05:26:49 UTC 2014
```

**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**

Basic

**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 contents of the ARP cache.

**Synopsis**

```
show arp
```

**CLI Mode**

Basic, Privileged

**Example**

```
vShield# show arp
IP address HW type Flags HW address Mask Device
192.0.2.130 0x1 0x6 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**

```
vShield# show clock
Wed Feb 9 13:04:50 UTC 2005
```

**Related Commands**

[set clock](#)

**show ethernet**

Shows Ethernet information for virtual machine interfaces.

**Synopsis**

```
show ethernet
```

**CLI Mode**

Basic, Privileged

**Example**

```
vShield# 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**

```
vShield# 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 manager log**

Shows the system log of the NSX Manager.

**Synopsis**

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

| Option        | Description                                                        |
|---------------|--------------------------------------------------------------------|
| follow        | Update the displayed log every 5 seconds.                          |
| reverse       | Show the log in reverse chronological order.                       |
| size          | Display manager log size.                                          |
| last <i>n</i> | Display the last <i>n</i> number of events in the NSX Manager log. |

### CLI Mode

Basic, Privileged

### Example

```
vShield# show manager log
SEM Debug Nov 15, 2005 02:46:23 PM PropertyUtils Prefix:applicationDir

SEM Debug Nov 15, 2005 02:46:23 PM PropertyUtils Props Read:[]
SEM Info Nov 15, 2005 02:46:23 PM RefreshDb UpdateVersionNumbers info does not exist

SEM Debug Nov 15, 2005 02:46:23 PM RefreshDb Applications: []
SEM Info Nov 15, 2005 02:46:23 PM RefreshDb Compiler version pairs found: []
```

### Related Commands

[show manager log last](#)

## show manager log last

Shows the last *n* number of events in the NSX Manager log.

### Synopsis

```
show manager log last NUM
```

| Option | Description                  |
|--------|------------------------------|
| NUM    | Number of events to display. |

### CLI Mode

Basic, Privileged

### Example

```
manager# show manager log last 10
```

### Related Commands

[show network interface](#)

## show slots

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

### Synopsis

```
show slots
```

### CLI Mode

Basic, Privileged

### Example

```
manager# show slots
```

Recovery: System Recovery v0.3.2  
 Slot 1: 13Aug09-09.49PDT  
 Slot 2: \* 16Aug09-23.52PDT (Boot)

## show tech-support

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

### Synopsis

show tech-support

### CLI Mode

Basic, Privileged

### Example

vShield# 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

vShield# shutdown

or

```
vShield(config)# interface mgmt
vShield(config-if)# shutdown
vShield(config-if)# no shutdown
```

### Related Commands

[reboot](#)

The feature commands help you monitor NSX Edge states and statistics.

## 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 <0-512>
```

| Option | Description                                                                           |
|--------|---------------------------------------------------------------------------------------|
| 0-512  | Enter the number of rows to display. If length is 0, no display control is performed. |

### CLI Mode

Privileged

### Example

```
manager# terminal length 50
```

### Related Commands

[terminal length](#)

[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](#)

[terminal length](#)

## traceroute

Traces the route to a destination.

### Synopsis

```
traceroute (HOSTNAME | A.B.C.D)
```

| Option             | Description                                      |
|--------------------|--------------------------------------------------|
| HOSTNAME   A.B.C.D | The hostname or IP address of the target system. |

### CLI Mode

Basic, Privileged

**Example**

```
vShield# 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 vShield Manager user interface admin account and password.

---

**IMPORTANT** Each vShield 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                                                                                                                       |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------|
| USERNAME  | Login name of the user.                                                                                                           |
| hash      | Masks the password by using the MD5 hash. You can view and copy the provided MD5 hash by running the show running-config command. |
| plaintext | Keeps the password unmasked.                                                                                                      |
| PASSWORD  | Password to use.                                                                                                                  |

**CLI Mode**

Configuration

**Example**

```
vShield(config)# user newuser1 password plaintext abcd1234
```

or

```
vShield(config) no user newuser1
```

**write**

Writes the running configuration to memory. This command performs the same operation as the write memory command.

**Synopsis**

```
write
```

**CLI Mode**

Privileged

**Example**

```
manager# write
```

**Related Commands**

[write memory](#)

**write erase**

Resets the CLI configuration to factory default settings.

**Synopsis**

write erase

**CLI Mode**

Privileged

**Example**

manager# write erase

**write memory**

Writes the current configuration to memory. This command is identical to the write command.

**Synopsis**

write memory

**CLI Mode**

Privileged, Configuration, and Interface Configuration

**Example**

manager# write memory

**Related Commands**

[write](#)

**NSX Edge Commands**

This section describes NSX Edge CLI commands.

**clear nat counters**

Resets NAT counters to zeros.

**Synopsis**

clear nat counters

**CLI Mode**

Privileged, Configuration, and Interface Configuration

**clear arp WORD**

Deletes an ARP entry from the ARP table, which is associated with the specified IP address.

**Synopsis**

clear arp WORD

**CLI Mode**

Privileged

**clear service dhcp lease**

Removes DHCP lease information from the DHCP service.

**Synopsis**

```
clear service dhcp lease
```

**CLI Mode**

Privileged

**clear service ipsec sa**

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

**Synopsis**

```
clear service ipsec sa WORD
```

**CLI Mode**

Privileged

**debug packet capture**

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

**Synopsis**

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

intif | extif            The specific NSX Edge interface from which to capture packets.

EXPRESSION            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 (intif | extif) [EXPRESSION]
```

intif | extif            The specific NSX Edge interface from which to display packets.

EXPRESSION            A tcpdump-formatted string. You must use an underscore between words in the expression.

**CLI Mode**

Privileged

**dnslookup serverName**

Makes DNS lookup query to the specified DNS server.

**Synopsis**

```
dnslookup ABC
```



**CLI Mode**

Basic

**dnslookup *serverName* / *address***

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

**Synopsis**

```
dnslookup server name_or_address
```

**CLI Mode**

Basic

**debug crashdump**

Activates crash dump support and triggers a reboot. After the reboot, NSX Edge runs with crashkernel support active. When a kernel panic occurs, NSX Edge boots the crash kernel and stores the kernel dump to the file system. Edge then reboots again back into the standard kernel, with crashdump still enabled.

To view the kernel dump file, use debug show files.

To copy the kernel dump file, use debug copy [ftp|scp] ....

To delete the kernel dump file, use debug remove [<filename>|all].

When crashdump is enabled, the available NSX Edge memory is reduced by 64MB. To disable crashdump support, type no debug crashdump.

The debug crashdump command is not supported for the 64 bit X-Large NSX Edge.

**Synopsis**

```
debug crashdump
```

**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 mgmt [EXPRESSION]
```

| Option     | Description                                                                             |
|------------|-----------------------------------------------------------------------------------------|
| mgmt       | The specific interface from which to capture packets.                                   |
| EXPRESSION | A tcpdump-formatted string. You must use an underscore between words in the expression. |

NSX Edge

```
[no] debug packet display interface (intif | extif) [EXPRESSION]
```

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

**CLI Mode**

Privileged

**Example**

```
vShield# debug packet display interface mgmt host_10.10.11.11_and_port_80
```

**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                                 |
|--------|---------------------------------------------|
| URL    | Enter the complete path of the destination. |

**CLI Mode**

Basic and Privileged

**Example**

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

**ping**

Pings a destination by its hostname or IP address.

**Synopsis**

```
ping (HOSTNAME | A.B.C.D)
```

| Option             | Description                                      |
|--------------------|--------------------------------------------------|
| HOSTNAME   A.B.C.D | The hostname or IP address of the target system. |

**CLI Mode**

Basic, Privileged

**Usage Guidelines**

Enter CTRL+C to end ping replies.

**Example**

```
vShield# 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.

**Synopsis**

```
ping interface addr (SOURCE_HOSTNAME | A.B.C.D) (DEST_HOSTNAME | A.B.C.D)
```

| Option                    | Description                                                                        |
|---------------------------|------------------------------------------------------------------------------------|
| SOURCE_HOSTNAME   A.B.C.D | The hostname or internal IP address of a virtual machine protected by an NSX Edge. |
| DEST_HOSTNAME   A.B.C.D   | The hostname or IP address of the destination.                                     |

**CLI Mode**

Basic, Privileged

**Usage Guidelines**

This command is useful for debugging IPSec-related issues.

Enter CTRL+C to end ping replies.

**Example**

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

**show arp**

Shows the Address Resolution Protocol (ARP) settings for the NSX Edge.

**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**

```
vShield# show clock
Wed Feb 9 13:04:50 UTC 2005
```

**Related Commands**

[set clock](#)

**show configuration**

Shows either the current global configuration or the configuration for a specified service on an NSX Edge.

**Synopsis**

show configuration (dhcp | firewall | ipsec | loadbalancer | nat | syslog | loadbalancer)

| Option       | Description                                   |
|--------------|-----------------------------------------------|
| dhcp         | Show the current DHCP configuration.          |
| firewall     | Show the current firewall configuration.      |
| ipsec        | Show the current VPN configuration.           |
| l2vpn        | Show the current L2 VPN configuration         |
| loadbalancer | Show the current Load Balancer configuration. |
| nat          | Show the current NAT configuration.           |
| syslog       | Show the current syslog configuration.        |

Usage for each option is shown in the command descriptions below.

**CLI Mode**

Basic

**Example**

```
vShieldEdge# show configuration dhcp
```

**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**

```
vShield-edge-2-0> 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 external DNS servers.

### Synopsis

```
show configuration dns
```

### CLI Mode

Basic

### Example

```
vShield-edge-2-0> 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 NSX Edge firewall configuration.

## Synopsis

show configuration firewall

## CLI Mode

Basic

## Example

vShield-edge-2-0> 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" : [
 "10.115.172.18"
],
 "matchTranslated" : false,
 "sourcePort" : [],
 "description" : "sslvpn",
 "service" : [
 "6:443:any"
],
 "srcIface" : [],
 "logging" : {
 "enable" : false,
 "logLevel" : null
 },
 "action" : "accept",
 "id" : 131076
},
{
 "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 configuration for all NSX Edge services.

### Synopsis

```
show configuration global
```

### CLI Mode

Basic

**Example**

```
vShield-edge-2-0> show configuration global
```

```

vShield Edge Global Config:
```

```
{
 "global" : {
 "edgeAssistId" : 0,
 "enableTcpLoose" : false,
 "hostname" : "vShield-edge-2-0",
 "hypervisorAssist" : false,
 "size" : "compact",
 "fips" : {
 "enable" : false
 },
 "enableAesni" : true,
 "tenantId" : "default",
 "haIndex" : "0",
 "distributedRouter" : false
 }
}
```

**show configuration highavailability**

Shows high availability configuration for the NSX Edge.

**Synopsis**

```
show configuration highavailability
```

**CLI Mode**

Basic

**Example**

```
vShield-edge-2-0> 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 interfaces configured for the NSX Edge.

**Synopsis**

```
show configuration interface
```



**CLI Mode**

Basic

**Example**

vShield-edge-2-0&gt; 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_4" : {
 "status" : "down",
 "name" : "vnic4",
 "sendRedirects" : true,
 "index" : 4,
 "enableProxyArp" : false,
 "lifName" : null,
 "mac" : "00:50:56:a2:76:06",
 "subnets" : [],
 "mtu" : 1500
 },
 "vNic_7" : {
 "status" : "down",
 "name" : "vnic7",
 "sendRedirects" : true,
 "index" : 7,
 "enableProxyArp" : false,
 "lifName" : null,
 "mac" : "00:50:56:a2:58:c5",
 "subnets" : [],
 "mtu" : 1500
 },
 "vNic_3" : {
 "status" : "down",
 "name" : "vnic3",
 "sendRedirects" : true,
 "index" : 3,

```

```

 "enableProxyArp" : false,
 "lifName" : null,
 "mac" : "00:50:56:a2:f8:e0",
 "subnets" : [],
 "mtu" : 1500
 },
 "vNic_5" : {
 "status" : "down",
 "name" : "vnic5",
 "sendRedirects" : true,
 "index" : 5,
 "enableProxyArp" : false,
 "lifName" : null,
 "mac" : "00:50:56:a2:ce:f7",
 "subnets" : [],
 "mtu" : 1500
 },
 "vNic_8" : {
 "status" : "down",
 "name" : "vnic8",
 "sendRedirects" : true,
 "index" : 8,
 "enableProxyArp" : false,
 "lifName" : null,
 "mac" : "00:50:56:a2:6e:07",
 "subnets" : [],
 "mtu" : 1500
 },
 "vNic_2" : {
 "status" : "down",
 "name" : "vnic2",
 "sendRedirects" : true,
 "index" : 2,
 "enableProxyArp" : false,
 "lifName" : null,
 "mac" : "00:50:56:a2:2b:ec",
 "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 ipsec

Shows certificate configuration for IPsec VPN.

### Synopsis

```
show configuration ipsec
```

### CLI Mode

Basic

### Example

```
vShield-edge-2-0> 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,
 "criCertificates" : [],
 "serviceCertificate" : null,
 "pskForDynamicIp" : null,
 "id" : null,
 "caCertificates" : []
 }
 }
}

```

## show configuration ipset

Shows IP address groups defined at the NSX Edge scope.

**Synopsis**

```
show configuration ipset
```

**CLI Mode**

Basic

**Example**

```
vShield-edge-2-0> show configuration ipset
```

```

vShield Edge IpSet Config:
```

```
{
 "ipSet" : []
}
```

**show configuration l2vpn**

Shows L2 VPN configuration.

**Synopsis**

```
show configuration l2vpn
```

**CLI Mode**

Basic

**Example**

```
vShield-edge-2-0> 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

```
vShield-edge-2-0> 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 monitor details.

### Synopsis

show configuration loadbalancer monitor

### CLI Mode

Basic

### Example

```
vShield-edge-2-0> 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 *poolName*

Shows pool details.

### Synopsis

show configuration loadbalancer pool poolname

### CLI Mode

Basic

### Example

```
vShield-edge-2-0> 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 *ruleName*

Shows rule details.



**Synopsis**

show configuration loadbalancer rule *rulename*

**CLI Mode**

Basic

**show configuration loadbalancer virtual *virtualServerName***

Shows virtual server details.

**Synopsis**

show configuration loadbalancer virtual *virtualServerName*

**CLI Mode**

Basic

**Example**

vShield-edge-2-0> 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" : null,
 "clientSsl" : null
 }
]
}
```

**show configuration nat**

Shows NAT rules defined for the NSX Edge.

**Synopsis**

show configuration nat

**CLI Mode**

Basic

**Example**

vShield-edge-2-0> 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 OSPF configuration.

### Synopsis

```
show configuration ospf
```

### CLI Mode

Basic

### Example

```

vShield-edge-1-0> sh configuration ospf
vShield Edge OSPF Routing Protocol Config:
{
 "ospf" : {
 "defaultOriginate" : false,
 "forwardingAddress" : null,
 "gracefulRestart" : true,
 "interfaces" : [
 {
 "cost" : 1,
 "priority" : 128,
 "areaId" : 51,
 "mtuIgnore" : false,
 "vnic" : "vNic_1",
 "deadInterval" : 40,
 "helloInterval" : 10
 },
 {
 "cost" : 1,
 "priority" : 128,
 "areaId" : 0,
 "mtuIgnore" : false,
 "vnic" : "vNic_2",
 "deadInterval" : 40,
 "helloInterval" : 10
 }
],
 "redistribute" : {
 "rules" : [
 {

```

```

 "fromOSPF" : false,
 "fromBGP" : false,
 "fromISIS" : false,
 "fromStatic" : true,
 "fromConnected" : false,
 "action" : "permit",
 "id" : 0,
 "prefix" : null
 }
],
"enabled" : true
},
"protocolAddress" : null,
"areas" : [
 {
 "areaId" : 51,
 "authenticationType" : "none",
 "authenticationSecret" : null,
 "type" : "nssa"
 },
 {
 "areaId" : 0,
 "authenticationType" : "none",
 "authenticationSecret" : null,
 "type" : "normal"
 },
 {
 "areaId" : 1,
 "authenticationType" : "none",
 "authenticationSecret" : null,
 "type" : "normal"
 }
],
"enabled" : true
}
}

```

## show configuration static\_routing

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

### Synopsis

```
show configuration static_routing
```

### CLI Mode

Basic

## show configuration syslog

Shows remote syslog servers defined for the NSX Edge.

### Synopsis

```
show configuration syslog
```

### CLI Mode

Basic

### Example

```
vShield-edge-2-0> show configuration syslog
```

```

vShield Edge Syslog Config:
{
 "syslog" : {
```

```

 "protocol" : "tcp",
 "destinationHost" : [
 "11.1.1.100",
 "11.1.1.2"
]
 }
}

```

## show configuration sslvpn-plus

Shows the SSL VPN configuration.

### Synopsis

```
show configuration sslvpn-plus
```

### CLI Mode

Basic

## show fips

Indicates whether fips (Federal Information Processing Standard) is enabled for the specified NSX Edge.

### Synopsis

```
show fips
```

### CLI Mode

Basic

## show firewall

Displays 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

Displays the firewall packet counters along with packet flows.

### Synopsis

```
show firewall flows
```

### CLI Mode

Basic

## show firewall flows top *number*

Displays firewall packet counters along with top N number of packet flows.

### Synopsis

```
show firewall flows top 10
```

### CLI Mode

Basic

## show firewall flows top *number* sort-by pkts

Displays firewall packet counters along with top N number of packet flows sorted by packet numbers.

### Synopsis

```
show firewall flows top 10 sort-by-pkts
```

### CLI Mode

Basic

## show firewall flows top *number* sort-by bytes

Displays firewall packet counters along with top N number of packet flows sorted by byte numbers.

### Synopsis

```
show firewall flows top 10 sort-by-bytes
```

### CLI Mode

Basic

## show firewall rule-id *ID*

Displays firewall packet counters filtered by rule-id.

### Synopsis

```
show firewall rule-id 25
```

### CLI Mode

Basic

## show firewall rule-id *ID* flows

Displays firewall packet counters filtered by rule-id.

### Synopsis

```
show firewall rule-id 25 flows
```

### CLI Mode

Basic

## show firewall rule-id *ID* flows top *number*

Displays firewall packet counters filtered by rule-id along with top N number of packet flows.

### Synopsis

```
show firewall rule-id 25 flows top 10
```

### CLI Mode

Basic

## show firewall rule-id *ID* flows top *number* sort-by pkts

Displays firewall packet counters filtered by rule-id along with top N number of packet flows sorted by packet numbers.

**Synopsis**

```
show firewall rule-id 25 flows top 10 sort-by-pkts
```

**CLI Mode**

Basic

**show firewall rule-id ID flows top *number* sort-by-bytes**

Displays firewall packet counters filtered by rule-id along with top N number of packet flows sorted by byte numbers.

**Synopsis**

```
show firewall rule-id 25 flows top 10 sort-by-bytes
```

**CLI Mode**

Basic

**show flowtable**

Displays packet flows in a table.

**Synopsis**

```
show flowtable
```

**CLI Mode**

Basic

**show flowtable rule-id *ID***

Displays packet flows matched by rule-id.

**Synopsis**

```
show flowtable rule-id 25
```

**CLI Mode**

Basic

**show flowtable rule-id *ID* top *number***

Displays the top N number of packet flows matched by rule-id.

**Synopsis**

```
show flowtable rule-id 25 top 30
```

**CLI Mode**

Basic

**show flowtable rule-id *ID* top *number* sort-by pkts**

Displays the top N number of packet flows matched by rule-id sorted by packet numbers.

**Synopsis**

```
show flowtable rule-id 25 top 30 sort-by pkts
```

**CLI Mode**

Basic

**show flowtable rule-id *ID* top *number* sort-by bytes**

Displays top N number of packet flows matched by rule-id sorted by byte numbers.

**Synopsis**

show flowtable rule-id 25 top 30 sort-by bytes

**CLI Mode**

Basic

**show flowtable top *number***

Displays top N number of packet flows.

**Synopsis**

show flowtable top 10

**CLI Mode**

Basic

**show flowtable top *number* sort-by pkts**

Displays top N number of packet flows sorted by packet numbers.

**Synopsis**

show flowtable top 10 sort-by pkts

**CLI Mode**

Basic

**show flowtable top *number* sort-by bytes**

Displays top N number of packet flows sorted by byte numbers.

**Synopsis**

show flowtable top 10 sort-by bytes

**CLI Mode**

Basic

**show hostname**

Shows the current hostname for an NSX Edge.

**Synopsis**

show hostname

**CLI Mode**

Basic, Privileged

**Example**

vshieldEdge# show hostname



## show interface

Displays interface information like IP addresses.

### Synopsis

show interface

### CLI Mode

Basic

## show interface *name*

Displays interface information for the specified interface.

### Synopsis

show interface TEST

### CLI Mode

Basic

## show ip bgp

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

### Synopsis

show ip bgp

### CLI Mode

Basic, Privileged

### Example

Status codes: s - suppressed, d - damped, > - best, i - internal

Origin codes: i - IGP, e - EGP, ? - incomplete

| Network         | Next Hop   | Metric | LocPrf | Weight | Origin |
|-----------------|------------|--------|--------|--------|--------|
| > 50.50.50.0/24 | 0.0.0.0    | 0      | 100    | 32768  | i      |
| > 60.60.60.0/24 | 50.50.50.3 | 0      | 100    | 32768  | i      |
| 80.80.80.0/24   | 20.20.20.1 | 0      | 100    | 60     | ?      |
| > 80.80.80.0/24 | 70.70.70.1 | 0      | 100    | 60     | ?      |
| > 90.90.90.0/24 | 50.50.50.3 | 0      | 100    | 32768  | i      |

## show ip bgp neighbors

Shows BGP neighbors.

### Synopsis

show ip bgp neighbors

### CLI Mode

Basic, Privileged

### 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.

### Synopsis

```
show ip forwarding
```

### CLI Mode

Basic, Privileged

### 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, Privileged

**Example**

```

OSPF routing process with Router ID 50.50.50.113
Supports opaque LSA
SPF schedule delay: 5 secs, Hold time between two SPFs: 10 secs
Minimum LSA interval: 5 secs, Minimum LSA arrival: 1 secs
Number of external LSA: 4, Checksum Sum: 0X119C0
Number of opaque AS LSA: 0, Checksum Sum: 0
Area BACKBONE(0)
 SPF algorithm executed 292 times
 Number of area border routers reachable within area: 0
 Number of LSA: 9, Checksum Sum: 0X32360
 Number of router LSA: 3, Checksum Sum: 0XE766
 Number of network LSA: 1, Checksum Sum: 0X5808
 Number of summary network LSA: 0, Checksum Sum: 0
 Number of summary ASB LSA: 0, Checksum Sum: 0
 Number of external NSSA LSA: 0, Checksum Sum: 0
 Number of opaque LSA: 5, Checksum Sum: 0X1E3F2
Area 0.0.0.51
 It is a NSSA area
 SPF algorithm executed 292 times
 Number of area border routers reachable within area: 0
 Number of LSA: 3, Checksum Sum: 0X203EE
 Number of router LSA: 0, Checksum Sum: 0
 Number of network LSA: 0, Checksum Sum: 0
 Number of summary network LSA: 0, Checksum Sum: 0
 Number of summary ASB LSA: 0, Checksum Sum: 0
 Number of external NSSA LSA: 1, Checksum Sum: 0X8BF5
 Number of opaque LSA: 2, Checksum Sum: 0X177F9

```

**show ip ospf database**

Shows IPv4 OSPF database.

**Synopsis**

```
show ip ospf database
```

**CLI Mode**

Basic, Privileged

**Example**

```

adv-ro uter Filtered by advertising router.
asbr-summary Show asbr-summary (type 4) LSAs.
external Show external (type 5) LSAs.
network Show network (type 2) LSAs.
nssa-external Show nssa-external (type 7) LSAs.
opaque-area Show opaque-area (type 10) LSAs.
router Show router (type 1) LSAs.
summary Show summary (type 3) LSAs.

```

**show ip ospf database adv-router**

Filters OSPF results by advertising router.

**Synopsis**

```
show ip ospf database adv-router
```

**CLI Mode**

Basic, Privileged

**Example**

```

Router Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum

```

```

50.50.50.113 50.50.50.113 866 0x80000068 0x00009039
Network Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum
50.50.50.113 50.50.50.113 866 0x80000067 0x00005808
Opaque Area Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum
1.0.0.1 50.50.50.113 737 0x8000005a 0x000003a6
1.0.0.2 50.50.50.113 692 0x8000005a 0x000029ab
Type-7 AS External Link States (Area 0.0.0.51)
Link ID ADV Router Age Seq Num Checksum
80.80.80.0 50.50.50.113 1317 0x80000059 0x00008bf5
Opaque Area Link States (Area 0.0.0.51)
Link ID ADV Router Age Seq Num Checksum
1.0.0.1 50.50.50.113 737 0x8000005a 0x0000a8fa
1.0.0.2 50.50.50.113 692 0x8000005a 0x0000ceff
AS External Link States
Link ID ADV Router Age Seq Num Checksum
80.80.80.0 50.50.50.113 1317 0x80000059 0x000089f7

```

## show ip ospf database asbr-summary

Shows asbr-summary (type 4) LSAs.

### Synopsis

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

### CLI Mode

Basic, Privileged

## show ip ospf database external

Shows external (type 5) LSAs.

### Synopsis

```
show ip ospf database external
```

### CLI Mode

Basic, Privileged

### Example

```

AS External Link States
Link ID ADV Router Age Seq Num Checksum
60.60.60.0 60.60.60.3 183 0x8000005b 0x00004130
80.80.80.0 50.50.50.41 475 0x80000059 0x00003b8e
80.80.80.0 50.50.50.113 1279 0x80000059 0x000089f7
90.90.90.0 60.60.60.3 1769 0x80000054 0x0000130b

```

## show ip ospf database network

Shows network (type 2) LSAs.

### Synopsis

```
show ip ospf database network
```

### CLI Mode

Basic, Privileged

### Example

```

Network Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum

```

```
50.50.50.113 50.50.50.113 832 0x80000067 0x00005808
```

## show ip ospf database nssa-external

Shows nssa-external (type 7) LSAs.

### Synopsis

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

### CLI Mode

Basic, Privileged

### Example

```
Type-7 AS External Link States (Area 0.0.0.51)
Link ID ADV Router Age Seq Num Checksum
80.80.80.0 50.50.50.113 1286 0x80000059 0x00008bf5
```

## show ip ospf database opaque-area

Shows opaque-area (type 10) LSAs.

### Synopsis

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

### CLI Mode

Basic, Privileged

### Example

```
Type-7 AS External Link States (Area 0.0.0.51)
Link ID ADV Router Age Seq Num Checksum
80.80.80.0 50.50.50.113 1286 0x80000059 0x00008bf5
```

## show ip ospf database router

Shows router (type 1) LSAs.

### Synopsis

```
show ip ospf database router
```

### CLI Mode

Basic, Privileged

### Example

```
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 database summary

Shows summary (type 3) LSAs.

### Synopsis

```
show ip ospf database summary
```

**CLI Mode**

Basic, Privileged

**Example**

```
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, Privileged

**Example**

```
vNic_0 is activated
Internet Address 50.50.50.113, Network Mask 255.255.255.0, Area 0.0.0.0
Transmit Delay is 1 sec, Network Type BROADCAST, State DR, Priority 128
Designated Router's Interface Address 50.50.50.113
Backup Designated Router's Interface Address 50.50.50.4
Timer intervals configured, Hello 10, Dead 40, Retransmit 5
```

**show ip ospf ne**

Shows IP addresses of OSPF neighbors.

**Synopsis**

show ip ospf ne

**CLI Mode**

Basic, Privileged

**Example**

| Neighbor ID | Priority | Address     | Dead Time | State        |
|-------------|----------|-------------|-----------|--------------|
| 60.60.60.3  | 128      | 50.50.50.4  | 34        | Full/BDR     |
| 50.50.50.41 | 128      | 50.50.50.41 | 36        | Full/DROTHER |

**show ip ospf statistics**

Shows IPv4 OSPF statistics.

**Synopsis**

show ip ospf statistics

**CLI Mode**

Basic, Privileged

**Example**

```
Area 0.0.0.0: SPF algorithm executed 292 times
Area 0.0.0.51: SPF algorithm executed 292 times
```

```
vShield-edge-6-0> sh ip ospf database
Router Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum
50.50.50.41 50.50.50.41 822 0x8000006b 0x00001b84
50.50.50.113 50.50.50.113 822 0x80000068 0x00009039
60.60.60.3 60.60.60.3 127 0x8000005b 0x00003ba9
Network Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum
50.50.50.113 50.50.50.113 822 0x80000067 0x00005808
Opaque Area Link States (Area 0.0.0.0)
Link ID ADV Router Age Seq Num Checksum
1.0.0.1 50.50.50.41 154 0x8000005a 0x0000ff76
1.0.0.1 50.50.50.113 693 0x8000005a 0x000003a6
1.0.0.1 60.60.60.3 237 0x8000005a 0x0000671f
1.0.0.2 50.50.50.41 827 0x80000063 0x0000500c
1.0.0.2 50.50.50.113 648 0x8000005a 0x000029ab
Type-7 AS External Link States (Area 0.0.0.51)
Link ID ADV Router Age Seq Num Checksum
80.80.80.0 50.50.50.113 1273 0x80000059 0x00008bf5
Opaque Area Link States (Area 0.0.0.51)
Link ID ADV Router Age Seq Num Checksum
1.0.0.1 50.50.50.113 693 0x8000005a 0x0000a8fa
1.0.0.2 50.50.50.113 648 0x8000005a 0x0000ceff
AS External Link States
Link ID ADV Router Age Seq Num Checksum
60.60.60.0 60.60.60.3 177 0x8000005b 0x00004130
80.80.80.0 50.50.50.41 469 0x80000059 0x00003b8e
80.80.80.0 50.50.50.113 1273 0x80000059 0x000089f7
90.90.90.0 60.60.60.3 1763 0x80000054 0x0000130b
```

## show ip route

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

### Synopsis

```
show ip route [A.B.C.D/M]
```

| Option  | Description         |
|---------|---------------------|
| A.B.C.D | IP address to use.  |
| M       | Subnet mask to use. |

### CLI Mode

Basic, Privileged

### Example

```
vShield# show ip route
Codes: K - kernel route, C - connected, S - static,
 > - selected route, * - FIB route
S>* 0.0.0.0/0 [1/0] via 192.168.110.1, mgmt
C>* 192.168.110.0/24 is directly connected, mgmt
```

### Related Commands

[ip route](#)

## show ip route ospf

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

### Synopsis

```
show ip route ospf
```

**CLI Mode**

Basic, Privileged

**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 ip route bgp**

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

**Synopsis**

show ip route bgp

**CLI Mode**

Basic, Privileged

**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  
 B 80.80.80.0/24 [20/0] via 20.20.20.1  
 B 80.80.80.0/24 [20/0] via 70.70.70.1

**show ip route A.B.C.D/M**

Displays a route entry matched by the specified prefix.

**Synopsis**

show ip route A.B.C.D

**CLI Mode**

Privileged, Configuration, and Interface Configuration

**show log**

Shows the system log.

**Synopsis**

show log [follow | reverse]

| Option  | Description                                  |
|---------|----------------------------------------------|
| follow  | Update the displayed log every 5 seconds.    |
| reverse | Show the log in reverse chronological order. |

**CLI Mode**

Basic, Privileged

**Example**

```
vShield# show log
Aug 7 17:32:37 vShield_118 syslog-ng[27397]: Configuration reload request received, reloading configuration;
Aug 7 17:32:37 vShield_118 udev[21427]: removing device node '/dev/vcs12'
Aug 7 17:32:37 vShield_118 udev[21429]: removing device node '/dev/vcsa12'
```



```

Aug 7 17:32:37 vShield_118 udev[21432]: creating device node '/dev/vcs12'
Aug 7 17:32:37 vShield_118 udev[21433]: creating device node '/dev/vcsa12'
Aug 7 17:33:37 vShield_118 ntpdate[21445]: adjust time server 10.115.216.84 offset 0.011031 sec
Aug 7 17:34:37 vShield_118 ntpdate[21466]: adjust time server 10.115.216.84 offset 0.002739 sec
Aug 7 17:35:37 vShield_118 ntpdate[21483]: adjust time server 10.115.216.84 offset 0.010884 sec
...

```

### Related Commands

[show log last](#)

## show log follow

Displays the log as it gets log contents.

### Synopsis

```
show log follow
```

### CLI Mode

Basic

## show log last

Shows last *n* lines of the log.

### Synopsis

```
show log last NUM
```

| Option | Description                    |
|--------|--------------------------------|
| NUM    | Number of log lines to display |

### CLI Mode

Basic, Privileged

### Example

```

vShield# show log last 2
Feb 9 12:30:55 localhost ntpdate[24503]: adjust time server 192.168.110.199 off
set -0.000406 sec
Feb 9 12:31:54 localhost ntpdate[24580]: adjust time server 192.168.110.199 off
set -0.000487 sec

```

### Related Commands

[show log](#)

## show log reverse

Displays the log in reverse chronological order.

### Synopsis

```
show log reverse
```

### CLI Mode

Basic

## 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 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, Privileged

**Example**

```
vShieldEdge# show process list
```

**show route**

Shows the current routes configured on an NSX Edge.

**Synopsis**

```
show route
```

**CLI Mode**

Basic, Privileged

**Example**

```
vShieldEdge# show route
```

**show service**

Shows the status of the specified NSX Edge service.

**Synopsis**

```
show service (dhcp | ipsec | lb)
```

| Option | Description                                   |
|--------|-----------------------------------------------|
| dhcp   | Show the status of the DHCP service.          |
| ipsec  | Show the status of the VPN service.           |
| lb     | Show the status of the Load Balancer service. |

**CLI Mode**

Basic

**Example**

```
vShieldEdge# show service dhcp
```

## show service l2vpn (on server)

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

### Synopsis

```
show service l2vpn
```

### CLI Mode

Basic, Privileged

### Example

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

L2 VPN type: Server
Tunnel information: 1 ABC na 1 1402561453 AES128-SHA
```

## show service l2vpn (on client)

Shows the L2 VPN client status.

### Synopsis

```
show service l2vpn
```

### CLI Mode

Basic, Privileged

### Example

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

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

## show service l2vpn bridge

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

### Synopsis

```
show service l2vpn bridge
```

### CLI Mode

Basic, Privileged

### Example

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

bridge name bridge id STP enabled interfaces
br-sub 8000.005056b86b46 no vnic1
 na1
```

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

| port no | mac addr          | is local? | vlan id | ageing timer |
|---------|-------------------|-----------|---------|--------------|
| 1       | 00:50:56:b8:6b:46 | yes       | 0       | );00         |
| 2       | c2:2b:0e:8b:b3:ba | yes       | 0       | 0:00         |

## show service l2vpn trunk-table

Lists the interfaces of the Edge and shows the trunk interfaces. You can run this command on both the client and the server.

### Synopsis

```
show service l2vpn trunk-table
```

### CLI Mode

Basic, Privileged

### Example

```
vShield-edge-1-0> show service l2vpn trunk-table
```

| ifindex | iface  | trunk flag |
|---------|--------|------------|
| 01      | lo     | 0          |
| 02      | VDR    | 0          |
| 03      | vNIC_0 | 0          |
| 04      | vNIC_4 | 0          |
| ...     | ...    | ...        |
| ...     | ...    | ...        |
| 06      | vNIC_1 | 1          |

## show service l2vpn conversion table

Lists the tunnel ID to which the network is mapped. Also indicates whether the network is VLAN or VXLAN.

### Synopsis

```
show service l2vpn trunk-table
```

### CLI Mode

Basic, Privileged

### Example

```
vShield-edge-1-0> show service l2vpn trunk-table
```

| TunnelId | VLAN/VNI | Type |
|----------|----------|------|
| 10       | 100      | VLAN |

## show service monitor

Shows the running status of health monitor service.

### Synopsis

```
show service monitor
```

**CLI Mode**

Basic, Privileged

**Example**

```
vShield-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
```

**CLI Mode**

Basic, Privileged

**Example**

```
vShield-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-l4-l7
| 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
+->SERVICE [3]
+->SERVICE METADATA INFORMATION:
| MONITOR: default_tcp_monitor
```

```

| POOL: tcp-pool
| MEMBER: m2
| HOST ADDRESS: 192.168.1.40
| CHECK EXECUTION TIME (s): 0.015
| CHECK LATENCY (s): 0.654
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: Connection refused
+-->SERVICE [4]
+-->SERVICE METADATA INFORMATION:
| MONITOR: default_tcp_monitor
| POOL: tcp-pool
| MEMBER: m3
| HOST ADDRESS: 192.168.1.50
| CHECK EXECUTION TIME (s): 0.035
| CHECK LATENCY (s): 0.652
| CHECK ATTEMPTS (CUR/MAX): 1/1
| CHECK RESULT: Connection refused
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 dhcp

Displays whether the DHCP service is running.

### Synopsis

```
show service dhcp
```

### CLI Mode

Basic

## show service dns

Displays whether the DNS service is running.

### Synopsis

```
show service dns
```

### CLI Mode

Basic

## 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 | ctrls | pubkeys | sa | sp | status)

| Option  | Description                                          |
|---------|------------------------------------------------------|
| cacerts | Show the CA certificates.                            |
| certs   | Show the Edge certificates                           |
| ctrls   | Show the CRLs revoke certificates.                   |
| pubkeys | Show the public keys.                                |
| sa      | Show the Ssecurity Association Database (SAD) entry. |
| sp      | Show the Ssecurity Policy Database (SPD) entry.      |
| status  | Show the status of the ipsec server.                 |

### CLI Mode

Basic

### Example

```
vShieldEdge# show service ipsec status
```

## show service ipsec cacerts

Displays IPSEC CA certificates.

### Synopsis

show service ipsec cacerts

### CLI Mode

Privileged, Configuration, and Interface Configuration

## show service ipsec certs

Displays IPSEC certificates.

### Synopsis

show service ipsec certs

### CLI Mode

Basic

## show service ipsec ctrls

Displays Certificate Revocation Lists (CRL).

### Synopsis

show service ipsec ctrls

### CLI Mode

Basic

## show service ipsec pubkeys

Displays 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

Displays 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 sp

Displays 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 highavailability

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

### Synopsis

```
show service highavailability
```

### CLI Mode

Basic

## show service highavailability link

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

### Synopsis

```
show service highavailability link
```

### CLI Mode

Basic

## show service highavailability connection-sync

Displays 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

**show service loadbalancer**

Display overall current loadbalancer engine state.

**Synopsis**

```
show service loadbalancer
```

**CLI Mode**

Basic

**show service loadbalancer monitor *monitorName***

Displays health of specified monitor.

**Synopsis**

```
show service loadbalancer monitor monitorName
```

**CLI Mode**

Basic

**Example**

```
vShield-edge-2-0> show service loadbalancer monitor
```

```

Loadbalancer HealthMonitor Statistics:
```

| POOL      | MEMBER      | HEALTH STATUS                 |
|-----------|-------------|-------------------------------|
| http-pool | http-Server | default_http_monitor:CRITICAL |

**show service loadbalancer pool *poolName***

Displays pool member state.

**Synopsis**

```
show service loadbalancer pool name
```

**CLI Mode**

Basic

**Example**

```
vShield-edge-2-0> 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

Displays concurrent sessions for both L4 and L7 load balancer engines.

### Synopsis

```
show service loadbalancer session
```

### CLI Mode

Basic

## show service loadbalancer table

Displays session persistence table entries.

### Synopsis

```
show service loadbalancer table
```

### CLI Mode

Basic

## show service loadbalancer virtual *serverName*

Displays virtual server details.

### Synopsis

```
show service loadbalancer virtual serverName
```

### CLI Mode

Basic

### Example

```
vShield-edge-2-0> 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 network connections

Displays service network connection information. For example, TCP and UDP service information.

### Synopsis

```
show service network connections
```

### CLI Mode

Basic

## show service sslvpn-plus

Displays SSL VPN-Plus service information.

**Synopsis**

```
show service sslvpn-plus
```

**CLI Mode**

Basic

**show service sslvpn-plus stats**

Displays SSL VPN-Plus statistic information.

**Synopsis**

```
show service sslvpn-plus stats
```

**CLI Mode**

Basic

**show service sslvpn-plus sessions**

Displays SSL VPN-Plus active sessions.

**Synopsis**

```
show service sslvpn-plus sessions
```

**CLI Mode**

Basic

**show service sslvpn-plus tunnels**

Displays SSL VPN-Plus tunnel information.

**Synopsis**

```
show service sslvpn-plus tunnels
```

**CLI Mode**

Basic

**show system load**

Shows the average processing load on an NSX Edge.

**Synopsis**

```
show system load
```

**CLI Mode**

Basic, Privileged

**Example**

```
vShield# show system mem
MemTotal: 2072204 kB
MemFree: 1667248 kB
Buffers: 83120 kB
```

**show system network-stats**

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

### **Synopsis**

show system network-stats

### **CLI Mode**

Basic

## **show system cpu**

Shows the system cpu details.

### **Synopsis**

show system cpu

### **CLI Mode**

Basic

### **Example**

```
vShield# show system cpu
```

### **Related Commands**

[show system memory](#)

[show system uptime](#)

## **show system log size**

Shows the total size of the system log files.

### **Synopsis**

show system log size

### **CLI Mode**

Basic

### **Example**

```
vShield# show system log size
1M
```

## **show system memory**

Shows the summary of memory utilization.

### **Synopsis**

show system memory

### **CLI Mode**

Basic, Privileged

### **Example**

```
vShield# show system mem
MemTotal: 2072204 kB
MemFree: 1667248 kB
Buffers: 83120 kB
```

## show system storage

Shows the disk usage details for an NSX Edge.

### Synopsis

```
show system storage
```

### CLI Mode

Basic, Privileged

### Example

```
vShield# show system storage
```

## show system uptime

Shows the length of time the NSX virtual machine has been operational since last reboot.

### Synopsis

```
show system uptime
```

### CLI Mode

Basic, Privileged

### Example

```
vShield# show system uptime
0 day(s), 8 hour(s), 50 minute(s), 26 second(s)
```

## show tech-support

Displays system information for tech-support. It shows all the information contained in tech-support tarball file.

### Synopsis

```
show tech-support
```

### CLI Mode

Basic

## show version

Shows the software version currently running on the virtual machine.

### Synopsis

```
show version
```

### CLI Mode

Basic, Privileged

### Example

```
vShield# show version
```

## traceroute

Traces the route to a destination.

**Synopsis**

```
tracertoute (HOSTNAME | A.B.C.D)
```

| Option             | Description                                      |
|--------------------|--------------------------------------------------|
| HOSTNAME   A.B.C.D | The hostname or IP address of the target system. |

**CLI Mode**

Basic, Privileged

**Example**

```
vShield# tracertoute 10.16.67.118
tracertoute 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
```

## NSX Controller Commands

This section describes controller commands. Log in as the controller admin to use the controller CLI commands.

### restart controller

Restarts a controller. You must restart only one controller in a cluster at a time.

**Synopsis**

```
restart controller
```

### set control-cluster core log-level *value*

Sets log level for the controller cluster. Possible values are:

- error
- warn
- info
- debug
- trace

**Synopsis**

```
set control-cluster core log-level value
```

**Example**

```
nsx-controller # set control-cluster core error
```

### show control-cluster core

Lists all available properties, the required parameters, and their descriptions for the controller framework.

**Synopsis**

```
show control-cluster core
```

**show control-cluster core stats**

Displays controller statistics.

**Synopsis**

```
show control-cluster core stats
```

**Example**

```
nvp-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 core connection-stats *ipAddress***

Displays statistics for the specified controller.

**Synopsis**

```
show control-cluster core connection-stats 11.11.111.11
```

**Example**

```
nvp-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 connection *ipAddress***

Displays status of specified connection.

**Synopsis**

```
show control-cluster core log-level 11.11.111.11
```

**Example**

```
nvp-controller # show control-cluster core connection 11.11.111.11
Host-IP Port ID
10.24.106.158 53540 3
```

**show control-cluster core log-level**

Displays log level for the specified controller.

**Synopsis**

```
show control-cluster core log-level
```

**Example**

```
nvp-controller # show control-cluster core log-level
Log level: INFO
```

**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*

Displays 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

```
nvp-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*

Displays 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

```
nvp-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*

Displays logical router information. *logicalRouterID* can be all.

### Synopsis

show control-cluster logical-routers instance *logicalRouterID*

### Example

```
nvp-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\_and\_logicalRouterName*

Displays interface details for logical router specified by ID and name.

### Synopsis

show control-cluster logical-routers interface *logicalRouterID\_and\_logicalRouterName*

### Example

```
nvp-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*

Displays interface summary for specified logical router.

### Synopsis

show control-cluster logical-routers interface-summary *logicalRoute\_ID*

### Example

```
nvp-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*

Displays static route for router specified by ID. *routerID* can be all.

### Synopsis

show control-cluster logical-routers routes *routerID*

### Example

```
nvp-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*

Displays 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

```
nvp-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

Displays statistics of all logical routers on this controller.

### Synopsis

show control-cluster logical-routers stats

### Example

```
nvp-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*

Displays statistics of the specified logical router.

**Synopsis**

```
show control-cluster logical-routers vdr-stats logicalRouterID
```

**Example**

```
nvp-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 startup-nodes**

Shows the IP addresses of active controllers in the cluster.

**Synopsis**

```
show control-cluster startup-nodes
```

**Example**

```
nvp-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**

```
nvp-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

**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 | Vmknick Count |
|----------------------------------------------------|----------|------|-------------|---------------|-----------------------|---------------|---------------|
| 35 fe 34 50 d4 59 27 de-e7 9f<br>c0 3d c8 c7 a0 84 | dvSwitch | 1600 | 192.168.0.0 | 192.168.0.254 | 00:00:0c:00:1<br>1:22 | 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 --vxlان-id *value* --vdsport-id *value***

Resets VXLAN network MAC table for specified vDS.

### **Synopsis**

esxcli network vswitch dvs vmware vxlan network mac reset -vxlان-id=*value* --vdsport-id=*value*

## **esxcli network vswitch dvs vmware vxlan network port list --vds-name *value* --vdsport-id *value* --vxlان-id *value***

Shows VXLAN port information with specified network.

### **Synopsis**

esxcli network vswitch dvs vmware vxlan network port list --vds-name *value* --vxlان-id *value* [--vdsport-id *value*]

### **Example**

```
esxcli network vswitch dvs vmware vxlan network port list --vds-name dvSwitch --vxlان-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* --vxlان-id *value***

Shows VXLAN port statistics information with specified network.

### **Synopsis**

esxcli network vswitch dvs vmware vxlan network port stats list --vds-name *value* --vxlان-id *value* --vdsport-id *value*

### **Example**

```
esxcli network vswitch dvs vmware vxlan network port stats list --vds-name dvSwitch --vxlان-id 5000 --vdsport-id=101
```

| Name     | Value |
|----------|-------|
| tx.total | 0     |
| rx.total | 0     |

## **esxcli network vswitch dvs vmware vxlan network stats list --vdsd-name *value* --vxlان-id *value***

Shows VXLAN network statistics.

### **Synopsis**

esxcli network vswitch dvs vmware vxlan network stats list --vdsd-name *value* --vxlان-id *value*

### **Example**

```
esxcli network vswitch dvs vmware vxlan network stats list --vdsd-name dvSwitch --vxlان-id 5000
```

| Name           | Value |
|----------------|-------|
| tx.total       | 0     |
| tx.nonUnicast  | 0     |
| tx.crossRouter | 0     |
| tx.drop.total  | 0     |

| Name                 | Value |
|----------------------|-------|
| 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 PortID | Endpoint ID | VLAN ID | IP          | Netmask       | IP Acquire Timeout | Multicast GroupCount | Segment ID  |
|-------------|----------------|------------|-------------|---------|-------------|---------------|--------------------|----------------------|-------------|
| vmk2        | 67108868       | 100        | 0           | 0       | 192.168.0.1 | 255.255.255.0 | 34960              | 0                    | 192.168.0.0 |

### **esxcli network vswitch dvs vmware vxlan vmknic multicastgroup list --vds-name *value* --vmknic-id *value* --vmknic-name *value* --vmknic-ip *value***

Retrieves VXLAN network VTEP table for specified vDS. To retrieve VTEP information for a specific segment or VTEP IP address, specify the segmentID or vtepIP parameter.

#### **Synopsis**

esxcli network vswitch dvs vmware vxlan vmknic multicastgroup list --vds-name *value* [--vmknic-id *value* --vmknic-name *value* --vmknic-ip *value*]

#### **Example**

```
esxcli network vswitch dvs vmware vxlan network mac --vds-name dvSwitch --vmknic-name vmk2
```

| Vmknic Name | Vmknic ID | VXLAN IP    | Multicast IP | Joined | Port Count |
|-------------|-----------|-------------|--------------|--------|------------|
| vmk2        | 0         | 192.168.0.1 | 239.0.0.1    | YES    | 1          |

### **esxcli network vswitch dvs vmware vxlan stats list --vds-name *value* --endpoint-id *value* --vmknic-name *value* --vmknic-ip *value***

Retrieves VXLAN vmknic statistics. To retrieve statistics for a specific vmknic, specify the Endpoint ID, IP, or name using the appropriate parameter.

#### **Synopsis**

esxcli network vswitch dvs vmware vxlan stats list --vds-name *value* [--endpoint-id *value* --vmknic-name *value* --vmknic-ip *value*]

#### **Example**

```
esxcli network vswitch dvs vmware vxlan stats list --vds-name dvSwitch
```

| Name           | Value |
|----------------|-------|
| tx.passThrough | 0     |
| tx.vxlanTotal  | 0     |
| tx.clone       | 0     |
| tx.tso         | 0     |

| Name                   | Value |
|------------------------|-------|
| 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

Displays 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

## Deprecated Commands

The following table lists deprecated commands.

**Table 3-1.** 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 show files                       |
| debug snapshot list                    |
| debug snapshot remove                  |
| debug snapshot restore                 |
| default web-manager password           |
| duplex auto                            |
| duplex (half full) speed (10 100 1000) |
| htp server                             |
| ip name server                         |
| ip policy-address                      |
| link-detect                            |
| linkwatch interval <5-60>              |
| manager key                            |

**Table 3-1.** Deprecated Commands

| <b>Command</b>                     |
|------------------------------------|
| mode policy-based-forwarding       |
| ntp server                         |
| open support-tunnel                |
| set support key                    |
| show alerts                        |
| show debug log                     |
| show dv-support                    |
| show hardware                      |
| show gateway rules                 |
| show interface                     |
| shop ip addr                       |
| show iptables                      |
| show kernel message                |
| show kernel message last           |
| show log alerts                    |
| show log events                    |
| show service helpers               |
| show service statistics            |
| show services                      |
| show session-manager counters      |
| show session-manager sessions      |
| show stacktrace                    |
| show startup-config                |
| show raid                          |
| show raid detail                   |
| show realms                        |
| copy running-config startup-config |
| show running-config                |
| show syslog                        |
| show system events                 |
| show system network_connections    |
| show syslog                        |
| show vmwall log                    |
| show vmwall rules                  |
| ssh end                            |
| syslog                             |
| telnet                             |
| vm validation                      |
| vm validation log                  |
| vmwall log suppression             |
| web-manager                        |





# Index

## B

basic mode of CLI **11**

## C

clear arp WORD **31**

clear nat counters **31**

clear service ipsec sa WORD **32**

CLI

configuration mode **12**

help **13**

interface mode **12**

logging in **12**

modes **11, 12**

privileged mode **12**

syntax **12**

command syntax **12**

commands,ESXi **83**

commands,NSX Controller **78**

commands,NSX Edge **31**

commands,NSX Manager **19, 89**

configuration mode of CLI **12**

## D

debug crashdump **33**

debug packet capture **32**

debug packet display interface **32, 33**

disable **19**

dnslookup server **32**

dnslookup server name\_or\_address **33**

## E

enable **20**

enable password **20**

esxcli network vswitch dvs vmware vxlan config stats  
get **83**

esxcli network vswitch dvs vmware vxlan config stats  
set **83**

esxcli network vswitch dvs vmware vxlan list get **83**

esxcli network vswitch dvs vmware vxlan list --vds-  
name value **83**

esxcli network vswitch dvs vmware vxlan network  
arp list --vds-name value --vxlan-id  
value **84**

esxcli network vswitch dvs vmware vxlan network  
arp reset -vds-name value --vxlan-id  
value **84**

esxcli network vswitch dvs vmware vxlan network list  
--vds-name value vxlan-id value **84**

esxcli network vswitch dvs vmware vxlan network  
mac list --vds-name value --vxlan-id  
value **84**

esxcli network vswitch dvs vmware vxlan network  
mac reset --vxlan-id value --vdsport-id  
value **85**

esxcli network vswitch dvs vmware vxlan network  
port list --vds-name value --vdsport-id value  
--vxlan-id value **85**

esxcli network vswitch dvs vmware vxlan network  
port stats list --vds-name value --vdsport-id  
value --vxlan-id value **85**

esxcli network vswitch dvs vmware vxlan network  
stats list --vdsd-name value --vxlan-id  
value **85**

esxcli network vswitch dvs vmware vxlan network  
stats reset --vxlan-id value --vdsport-id  
value **86**

esxcli network vswitch dvs vmware vxlan network  
vtep list --vds-name value --vxlan-id value -  
-segment-id value --vtep-ip value **86**

esxcli network vswitch dvs vmware vxlan stats list --  
vds-name value --endpoint-id value --  
vmknic-name value --vmknic-ip value **87**

esxcli network vswitch dvs vmware vxlan stats reset  
--vds-name value **88**

esxcli network vswitch dvs vmware vxlan vmknic list  
--vds-name value --endpoint-id value --  
vmknic-name value --vmknic-ip value **87**

esxcli network vswitch dvs vmware vxlan vmknic  
multicastgroup list --vds-name value --  
vmknic-id value --vmknic-name value --  
vmknic-ip value **87**

ESXi CLI Commands **83**

exit **20**

export tech-support scp **21, 34**

## H

help

CLI **13**

hostname **21**

## I

interface **21**

interface mode of CLI **12**

ip address **22**

ip route **22**

**L**

list **24**  
 login  
     CLI **12**

**P**

ping **23, 34**  
 ping interface addr **28, 34**  
 privileged mode of CLI **12**

**Q**

quit **24**

**R**

reboot **24**  
 reset **29**  
 restart controller **78**

**S**

set clock **24**  
 set control-cluster core log-level **78**  
 setup **28**  
 show arp **25, 35**  
 show clock **25, 35**  
 show configuration **35**  
 show configuration dhcp **36**  
 show configuration dns **37**  
 show configuration firewall **37**  
 show configuration global **39**  
 show configuration highavailability **40**  
 show configuration interface **40**  
 show configuration ipsec **43**  
 show configuration ipset **43**  
 show configuration loadbalancer **45**  
 show configuration loadbalancer monitor **47**  
 show configuration loadbalancer pool **48**  
 show configuration loadbalancer rule **48**  
 show configuration loadbalancer virtual **49**  
 show configuration nat **49**  
 show configuration ospf **51**  
 show configuration sslvpn-plus **53**  
 show configuration static\_routing **52**  
 show configuration syslog **52**  
 show control-cluster core **78**  
 show control-cluster logical-routers **79**  
 show control-cluster logical-routers bridge-mac  
     logicalRouterID\_and/or\_bridgeID **80**  
 show control-cluster logical-routers bridges  
     logicalRouterID\_and\_bridgeID **80**  
 show control-cluster logical-routers instance  
     logicalRouterID **80**  
 show control-cluster logical-routers interface  
     logicalRouterID\_and\_logicalRouterName  
     **80**

show control-cluster logical-routers interface-  
     summary logicalRouterID **81**  
 show control-cluster logical-routers routes  
     routerID **81**  
 show control-cluster logical-routers routes  
     routerID\_and\_IPAddress\_and\_prefixLengt  
     h **81**  
 show control-cluster logical-routers stats **81**  
 show control-cluster logical-routers vdr-stats  
     logicalRouterID **81**  
 show control-cluster startup-nodes **82**  
 show control-cluster status **82**  
 show ethernet **26**  
 show filesystem **26**  
 show fips **53**  
 show firewall **53**  
 show firewall flows **53**  
 show firewall flows top number **53**  
 show firewall flows top number sort-by bytes **54**  
 show firewall flows top number sort-by pkts **54**  
 show firewall rule-id ID **54**  
 show firewall rule-id ID flows **54**  
 show firewall rule-id ID flows top number **54**  
 show firewall rule-id ID flows top number sort-by  
     pkts **54**  
 show firewall rule-id ID flows top number sort-by-  
     bytes **55**  
 show flowtable **55**  
 show flowtable rule-id ID **55**  
 show flowtable rule-id ID top number **55**  
 show flowtable rule-id ID top number sort-by  
     bytes **56**  
 show flowtable rule-id ID top number sort-by pkts **55**  
 show flowtable top number **56**  
 show flowtable top number sort-by bytes **56**  
 show flowtable top number sort-by pkts **56**  
 show hostname **56**  
 show interface **57**  
 show interface name **57**  
 show ip bgp **57**  
 show ip bgp neighbors **57**  
 show ip forwarding **58**  
 show ip ospf **58**  
 show ip ospf database **59**  
 show ip ospf database adv-router **59**  
 show ip ospf database asbr-summary **60**  
 show ip ospf database external **60**  
 show ip ospf database network **60**  
 show ip ospf database nssa-external **61**  
 show ip ospf database opaque-area **61**  
 show ip ospf database router **61**  
 show ip ospf database summary **61**  
 show ip ospf interface **62**  
 show ip ospf ne **62**

show ip ospf statistics **62**  
 show ip route **63**  
 show ip route A.B.C.D/M **64**  
 show ip route bgp **64**  
 show ip route ospf **63**  
 show log **64**  
 show log last **65**  
 show log reverse **65**  
 show manager log **82**  
 show manager log last **27**  
 show nat **65**  
 show network interface **82**  
 show process **66**  
 show route **66**  
 show service **66**  
 show service dhcp **70**  
 show service dns **70**  
 show service highavailability **72**  
 show service highavailability connection-sync **72**  
 show service highavailability link **72**  
 show service ipsec **71**  
 show service ipsec certs **71**  
 show service ipsec crls **71**  
 show service ipsec pubkeys **72**  
 show service ipsec sa **72**  
 show service ipsec sp **72**  
 show service loadbalancer **73**  
 show service loadbalancer monitor monitorName **73**  
 show service loadbalancer pool poolName **73**  
 show service loadbalancer session **74**  
 show service loadbalancer table **74**  
 show service loadbalancer virtual serverName **74**  
 show service monitor **68**  
 show service monitor service **69**  
 show service network connections **74**  
 show service sslvpn-plus **74**  
 show service sslvpn-plus sessions **75**  
 show service sslvpn-plus stats **75**  
 show service sslvpn-plus tunnels **75**  
 show session-manager counters **27**  
 show slots **27**  
 show system cpu **76**  
 show system load **75, 76**  
 show system memory **76**  
 show system network-stats **75**  
 show system storage **77**  
 show system uptime **77**  
 show tech support **28**  
 show tech-support **77**  
 show version **77**  
 shutdown **28**  
 summarize-dvfilter **88**

syntax for CLI commands **12**

## T

terminal length **29**  
 terminal no length **29**  
 traceroute **29, 77**

## U

user **30**

## W

write **30**  
 write erase **31**  
 write memory **31**

