Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference

September 2013

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Text Part Number: OL-25805-3

Cisco Nexus 7000 Series NX-OS System Management Configuration Guide, Release 6.x

CONTENTS

Text Part Number:

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New and Changed Information

This chapter provides release-specific information for each new and changed feature in the *Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference*.

To check for additional information about Cisco NX-OS Release 6.x, see the *Cisco NX-OS Release Notes* available at the following Cisco website:
http://www.cisco.com/en/US/products/ps9402/prod_release_notes_list.html

Table 1 summarizes the new and changed features for the *Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference*, and tells you where they are documented.

Table 1 New and Changed Information for Release 6.x

Feature	Change Description	Changed in Release	Where Documented
Rolling back configuration	You can copy an ASCII version of the configuration to the startup-configuration when reloading the entire NX-OS device.	6.2(2)	**reload ascii**
Python API	You can invoke the Python Interpreter in interactive mode from the CLI.	6.2(2)	**python**
source	Changed the command example.	6.2(2)	**source**
POAP	This command was introduced.	6.1(2)	**copy scheduled-config**
source	This command was introduced.	6.1(2)	**source**
pong service	Changed the command output.	6.1(1)	**pong**
Clear inactive configurations: ACL, QoS	You can delete the inactive ACL and QoS configuration from the Cisco NX-OS device	5.2(1)	**clear inactive-config acl** **clear inactive-config acl qos** **clear inactive-config qos**
Pong service	You can monitor the delay between two switches or two ports in a network with the latency metrics provided by the Pong service.	5.2(1)	**feature pong** **pong**
Clock manager	You can set the protocol for the clock on a virtual device context.	5.2(1)	**clock protocol**
Licensing	You can view the license information of the packages that are available for the features on a Cisco NX-OS device.	5.2(1)	**show license feature package mapping**
Concurrent line cards upgrade	You can upgrade up to three line cards concurrently.	5.2(1)	**install all parallel**

Table 1 New and Changed Information for Release 6.x (continued)

Feature	Change Description	Changed in Release	Where Documented
feature-set	Introduced a new high-level functionality, feature set, which performs a specific set of functions.	5.1(1)	**allow feature-set** **feature-set** **install feature-set** **show feature-set**
Transferring files securely	You can transfer configuration and image files to or from Cisco devices.	5.0(2)	**sscp**
Installation failure log	You can clear the installation failure log on the standby supervisor module.	4.2(1)	**clear install all failed-standby**
Command syntax	You can display the syntax of available commands for the command mode.	4.2(1)	**show cli syntax**
Running configuration	You can exclude the configuration information for features when you display the running configuration.	4.2(1)	**show running-config**
Startup configuration	You can exclude the configuration information for features when you display the startup configuration.	4.2(1)	**show startup-config**
I/O module commands	You can send commands to an I/O module from the supervisor module session.	4.2(1)	**slot**
tar files	You can create and manage tar files.	4.2(1)	**tar append** **tar create** **tar extract** **tar list**
Command aliases	You can create aliases only for your user account.	4.2(1)	**terminal alias**
Terminal display colors	You can configure the colors of the information on the terminal session.	4.2(1)	**terminal color**
Command confirmation prompts	You can enable or disable the display of command confirmation prompts.	4.2(1)	**terminal dont-ask**
Command edit mode	You can set the command edit mode to emacs or vi.	4.2(1)	**terminal edit-mode vi**
Command history	You can exclude EXEC commands when you display the command history from a configuration mode.	4.2(1)	**terminal history** **no-exec-in-config**
Command logging	You can enable or disable logging of all command in the accounting log.	4.2(1)	**terminal log-all**
Output redirection format	You can set the format of **show** command output to either ASCII or zipped.	4.2(1)	**terminal redirection-mode**
Licensing	You can specify the name of the file when you update a Cisco NX-OS software license.	4.2(1)	**update license**
Modem connections	You can bring up or restart a modem connection.	4.1(2)	**modem connect line** **modem restart line**

Table 1 New and Changed Information for Release 6.x (continued)

Feature	Change Description	Changed in Release	Where Documented
Command mode context	You can save and restore a command mode context.	4.1(2)	**pop** **push**
Displaying version information	You can display build information for the system and kickstart images running on your device.	4.1(2)	**show version**
Echoing text to command-line prompt	Changed the -e to backslash-interpret in the echo command.	4.0(2)	**echo**

Preface

This preface describes the audience, organization, and conventions of the *Cisco Nexus 7000 Series NX-OS Fundamentals Command Reference*. It also provides information on how to obtain related documentation.

This chapter includes the following sections:

Audience

This publication is for experienced users who configure and maintain Cisco NX-OS devices.

Organization

This reference is organized as follows:

Chapter and Title	Description
New and Changed Information	Describes the new and changed information for each Cisco NX-OS software release.
Cisco Nexus 7000 Series NX-OS Fundamentals Commands	Describes the Cisco NX-OS fundamentals commands.

Document Conventions

Command descriptions use these conventions:

Convention	Description
boldface font	Commands and keywords are in boldface.
italic font	Arguments for which you supply values are in italics.
[ ]	Elements in square brackets are optional.
[**x** | **y** | **z**]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

`screen font`	Terminal sessions and information that the switch displays are in screen font.
`boldface screen font`	Information you must enter is in boldface screen font.
`italic screen font`	Arguments for which you supply values are in italic screen font.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:

Note Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Tip Means *the following information will help you solve a problem*.

Related Documentation

Cisco NX-OS includes the following documents:

Release Notes

Cisco Nexus 7000 Series NX-OS Release Notes, Release 6.x

NX-OS Configuration Guides

Cisco Nexus 2000 Series Fabric Extender Software Configuration Guide
Cisco Nexus 7000 Series NX-OS Configuration Examples
Cisco Nexus 7000 Series NX-OS FabricPath Configuration Guide
Configuring Feature Set for FabricPath
Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide
Cisco Nexus 7000 Series NX-OS High Availability and Redundancy Guide
Cisco Nexus 7000 Series NX-OS Interfaces Configuration Guide
Cisco Nexus 7000 Series NX-OS IP SLAs Configuration Guide
Cisco Nexus 7000 Series NX-OS Layer 2 Switching Configuration Guide
Cisco Nexus 7000 Series NX-OS LISP Configuration Guide
Cisco Nexus 7000 Series NX-OS MPLS Configuration Guide
Cisco Nexus 7000 Series NX-OS Multicast Routing Configuration Guide
Cisco Nexus 7000 Series NX-OS OTV Configuration Guide
Cisco Nexus 7000 Series OTV Quick Start Guide
Cisco Nexus 7000 Series NX-OS Quality of Service Configuration Guide
Cisco Nexus 7000 Series NX-OS SAN Switching Configuration Guide
Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide
Cisco Nexus 7000 Series NX-OS System Management Configuration Guide
Cisco Nexus 7000 Series NX-OS Unicast Routing Configuration Guide
Cisco Nexus 7000 Series NX-OS Verified Scalability Guide
Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide
Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide
Cisco Nexus 7000 Series NX-OS Getting Started with Virtual Device Contexts
Cisco NX-OS FCoE Configuration Guide for Cisco Nexus 7000 and Cisco MDS 9500

NX-OS Command References

Cisco Nexus 7000 Series NX-OS Command Reference Master Index
Cisco Nexus 7000 Series NX-OS FabricPath Command Reference
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Cisco Nexus 7000 Series NX-OS LISP Command Reference
Cisco Nexus 7000 Series NX-OS MPLS Command Reference
Cisco Nexus 7000 Series NX-OS Multicast Routing Command Reference

Cisco Nexus 7000 Series NX-OS OTV Command Reference

Cisco Nexus 7000 Series NX-OS Quality of Service Command Reference

Cisco Nexus 7000 Series NX-OS SAN Switching Command Reference

Cisco Nexus 7000 Series NX-OS Security Command Reference

Cisco Nexus 7000 Series NX-OS System Management Command Reference

Cisco Nexus 7000 Series NX-OS Unicast Routing Command Reference

Cisco Nexus 7000 Series NX-OS Virtual Device Context Command Reference

Cisco NX-OS FCoE Command Reference for Cisco Nexus 7000 and Cisco MDS 9500

Other Software Documents

Cisco Nexus 7000 Series NX-OS Licensing Guide

Cisco Nexus 7000 Series NX-OS MIB Quick Reference

Cisco Nexus 7000 Series NX-OS Software Upgrade and Downgrade Guide

Cisco NX-OS System Messages Reference

Cisco NX-OS XML Management Interface User Guide

Documentation Feedback

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Obtaining Documentation and Submitting a Service Request

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http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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Cisco Nexus 7000 Series NX-OS Fundamentals Commands

This chapter describes the Cisco Nexus 7000 Series NX-OS fundamentals commands.

attach module

To start a command session on an I/O module, use the **attach module** command.

attach module *slot-number*

Syntax Description		
	slot-number	Slot number in the chassis for the I/O module. The range is from 1 to 10.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin

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

Usage Guidelines To exit the I/O module session, use the **exit** command. To abort the session, press the **$** character sequence.

You can also use the **slot** command to send commands to an I/O module from the supervisor module session.

Use the question mark character (**?**) to obtain context-sensitive help.

This command does not require a license.

Examples This example shows how to start a command session on an I/O module:

```
switch# attach module 2
Attaching to module 2 ...
To exit type 'exit', to abort type '$.'
module-2#
```

Related Commands	Command	Description
	slot	Sends commands to an I/O module.

allow feature-set

To allow a virtual device context (VDC) to enable a feature set, use the **allow feature-set** command. To disable a feature set on a VDC, use the **no** form of this command.

allow feature-set [**fcoe | fex | l2mp**]

no allow feature-set [**fcoe | fex | l2mp**]

Syntax Description

fcoe	(Optional) Specifies Fibre Channel over Ethernet.
fex	(Optional) Specifies the Fabric Extender (FEX).
l2mp	(Optional) Specifies FabricPath.

Defaults

None

Command Modes

config-vdc mode

SupportedUserRoles

network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to enable a feature set on a VDC:

```
switch(config)# vdc 1
switch(config-vdc)# allow feature-set l2mp
switch(config-vdc)#
```

This example shows how to disable a feature set on a VDC:

```
switch(config)# vdc 1
switch(config-vdc)# no allow feature-set l2mp
switch(config-vdc)#
```

Related Commands

Command	Description
feature-set	Enables a feature set.
install feature-set	Installs a feature set.

banner motd

To configure the message-of-the-day (MOTD) banner that displays when the user logs in to the device, use the **banner motd** command. To revert to the default, use the **no** form of this command.

banner motd *delimiting-character message delimiting-character*

no banner motd

Syntax Description

delimiting-character	Delimiting character that you choose. This character indicates the start and end of the message and is not a character that you use in the message. Do not use **"** or **%** as a delimiting character.
message	Message text. The text is alphanumeric, case sensitive, and can contain special characters. It does not contain the delimiting character you have chosen. The text has a maximum length of 80 characters and can have a maximum of 40 lines.

Defaults

User Access Verification

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

To create a multiple-line MOTD banner, press **Enter** before typing the delimiting character to start a new line. You can enter up to 40 lines of text.

This command does not require a license.

Examples

This example shows how to configure a single-line MOTD banner:

```
switch# configure terminal
switch(config)# banner motd #Unauthorized access to this device is prohibited!#
```

This example shows how to configure a multiple-line MOTD banner:

```
switch# configure terminal
switch(config)# banner motd #Welcome to authorized users!
> Unauthorized access prohibited.#
```

This example shows how to revert to the default MOTD banner:

```
switch# configure terminal
switch(config)# no banner motd
```

Related Commands

Command	Description
show banner motd	Displays the MOTD banner.

boot auto-copy

To enable automatic copying of boot image files to the standby supervisor module, use the **boot auto-copy** command. To disable automatic copying, use the **no** form of this command.

boot auto-copy

no boot auto-copy

Syntax Description

This command has no arguments or keywords.

Defaults

Enabled

Command Modes

Global configuration mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

When automatic copying of image files is enabled, the Cisco NX-OS software copies the image files referred to by the boot variable to the standby supervisor module. These image files must be present in local memory on the active supervisor module. For kickstart and system boot variables, only those image files that are configured for the standby supervisor module are copied. For module images, all modules present in the corresponding locations (bootflash: or slot0:) of the standby supervisor module will be copied.

This command does not require a license.

Examples

This example shows how to enable automatic copying of boot image files to the standby supervisor module:

```
switch# configure terminal
switch(config)# boot auto-copy
Auto-copy administratively enabled
```

Related Commands

Command	Description
boot kickstart	Configures the kickstart boot variable.
boot system	Configures the system boot variable.
copy	Copies files.
show boot	Displays boot variable configuration information.

boot kickstart

To configure the boot variable for the Cisco NX-OS software kickstart image, use the **boot kickstart** command. To clear the kickstart image boot variable, use the **no** form of this command.

boot kickstart [*filesystem*:[*//directory*] | *directory*]*filename* [**sup-1**] [**sup-2**]

no boot kickstart

Syntax Description

filesystem:	(Optional) Name of a file system. Valid values are **bootflash** or **slot0**.
//directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the kickstart image file. The filename is case sensitive.
sup-1	(Optional) Configures the kickstart boot variable for the supervisor module 1 (Sup-1) only.
sup-2	(Optional) Configures the kickstart boot variable for supervisor module (Sup-2) only.

Defaults

Can be configured for both the supervisor modules.

Command Modes

Global configuration mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The Cisco NX-OS software uses the boot variable for loading images when booting up using the **reload** or **install all** command. You must copy the kickstart image to the device before you set the kickstart boot variable. You must also set the system boot variable using the **boot system** command.

Note We recommend that you use the **install all** command to update the system image on your device.

For information on upgrading and downgrading images on your Cisco NX-OS device, see the *Cisco Nexus 7000 Series NX-OS Software Upgrade and Downgrade Guide*. This command does not require a license.

Examples

This example shows how to configure the kickstart boot variable for both supervisor modules:

```
switch# configure terminal
switch(config)# boot kickstart bootflash:kickstart-image
```

This example shows how to configure the kickstart boot variable for the sup-1 supervisor module:

```
switch# configure terminal
switch(config)# boot kickstart bootflash:kickstart-image sup-1
```

This example shows how to clear the kickstart boot variable:

```
switch# configure terminal
switch(config)# no boot kickstart
```

Related Commands

Command	Description
boot system	Configures the system boot variable.
copy	Copies files.
install all	Installs the software on the physical device.
reload	Reloads the device with new Cisco NX-OS software.
show boot	Displays boot variable configuration information.

boot system

To configure the boot variable for the Cisco NX-OS software system image, use the **boot system** command. To clear the system image boot variable, use the **no** form of this command.

boot system [*filesystem*:[*//directory*] | *directory*]*filename* [**sup-1**] [**sup-2**]

no boot system

Syntax Description

filesystem:	(Optional) Name of a file system. Valid values are **bootflash** or **slot0**.
//directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the system image file. The filename is case sensitive.
sup-1	(Optional) Configures the system boot variable for supervisor module (Sup-2) only.
sup-2	(Optional) Configures the system boot variable for supervisor module (Sup-2) only.

Defaults

Can be configured for both the supervisor modules.

Command Modes

Global configuration mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The Cisco NX-OS software uses the boot variable for loading images when booting up using the **reload** or **install all** command. You must copy the system image to the device before you set the system boot variable. You must also set the kickstart boot variable using the **boot kickstart** command.

Note We recommend that you use the **install all** command to update the system image on your device.

For information on upgrading and downgrading images on your Cisco NX-OS device, see the *Cisco Nexus 7000 Series NX-OS Software Upgrade and Downgrade Guide*.

This command does not require a license.

Examples

This example shows how to configure the system boot variable for both supervisor modules:

```
switch# configure terminal
switch(config)# boot system bootflash:system-image
```

This example shows how to configure the system boot variable for the sup-1 supervisor module:

```
switch# configure terminal
switch(config)# boot system bootflash:system-image sup-1
```

This example shows how to clear the system boot variable:

```
switch# configure terminal
switch(config)# no boot system
```

Related Commands

Command	Description
boot kickstart	Configures the kickstart boot variable.
copy	Copies files.
install all	Installs the software on the physical device.
reload	Reloads the device with new Cisco NX-OS software.
show boot	Displays boot variable configuration information.

cd

To change the current working directory in the device file system, use the **cd** command.

cd [*filesystem*:[*//directory*] | *directory*]

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **slot0**, **volatile**, **usb1**, or **usb2**.
//directory	(Optional) Name of the directory. The directory name is case sensitive.

Defaults

bootflash

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **pwd** command to verify the current working directory.

You can change only the directories that reside on the active supervisor module.

This command does not require a license.

Examples

This example shows how to change the current working directory on the current file system:

```
switch# cd my-scripts
```

This example shows how to change the current working directory to another file system:

```
switch# cd slot0:
```

This example shows how to revert back to the default working directory (bootflash):

```
switch# cd
```

Related Commands

Command	Description
pwd	Displays the current working directory name.

clear cli history

To clear the command history, use the **clear cli history** command.

clear cli history

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines Use the **show cli history** command to display the history of the commands that you entered at the command-line interface (CLI).

This command does not require a license.

Examples This example shows how to clear the command history:

```
switch# clear cli history
```

Related Commands

Command	Description
show cli history	Displays the command history.

clear debug-logfile

To clear the contents of the debug logfile, use the **clear debug-logfile** command.

clear debug-logfile *filename*

Syntax Description

filename	Name of the debug logfile to clear.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to clear the debug logfile:

```
switch# clear debug-logfile syslogd_debugs
```

Related Commands

Command	Description
debug logfile	Configures a debug logging file.
debug logging	Enables debug logging.
show debug logfile	Displays the contents of the debug logfile.

clear inactive-config acl

To clear inactive access control list (ACL) configurations, use the **clear inactive-config acl** command.

clear inactive-config acl

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to clear inactive ACL configurations:

```
switch# configure terminal
switch(config)# clear inactive-config acl
switch(config)#
```

Related Commands

Command	Description
clear inactive-config acl qos	Deletes the inactive ACL configurations for QoS.
clear inactive-config qos	Deletes the inactive QoS configurations.

clear inactive-config acl qos

To clear inactive access control list (ACL) configurations for quality of service (QoS), use the **clear inactive-config acl qos** command.

clear inactive-config acl qos

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to clear inactive ACL configurations for QoS:

```
switch# configure terminal
switch(config)# clear inactive-config acl qos
switch(config)#
```

Related Commands

Command	Description
clear inactive-config acl	Deletes the inactive ACL configurations.
clear inactive-config qos	Deletes the inactive QoS configurations.

clear inactive-config qos

To clear inactive quality of service (QoS) configurations, use the **clear inactive-config qos** command.

clear inactive-config acl qos

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to clear inactive QoS configurations:

```
switch# configure terminal
switch(config)# clear inactive-config qos
switch(config)#
```

Related Commands

Command	Description
clear inactive-config acl	Deletes the inactive ACL configurations.
clear inactive-config acl qos	Deletes the inactive ACL configuration for QoS.

clear install all failed-standby

To clear the software installation failure log on the standby supervisor module, use the **clear install all failed-standby** command.

clear install all failed-standby

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to clear the software installation failure log on the standby supervisor module:

```
switch# clear install all failed-standby
```

Related Commands

Command	Description
show install all	Displays status information for the software installation.

clear install failure-reason

To clear the reason for software installation failures, use the **clear install failure-reason** command.

clear install failure-reason

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to clear the reason for software installation failures:

```
switch# clear install failure-reason
```

Related Commands

Command	Description
show install all	Displays status information for the software installation.

clear license

To uninstall a license, use the **clear license** command.

clear license *filename*

Syntax Description		
	filename	Name of the license file to be uninstalled.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin

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

Usage Guidelines This command does not require a license.

Examples This example shows how to clear a specific license:

```
switch# clear license Enterprise.lic
Clearing license Enterprise.lic:
SERVER this_host ANY
VENDOR cisco

Do you want to continue? (y/n) y
Clearing license ..done
switch#
```

Related Commands	Command	Description
	show license	Displays license information.

cli alias name

To configure a command alias, use the **cli alias name** command. To delete a command alias, use the **no** form of this command.

cli alias name *alias-name alias-text*

no cli alias name *alias-name alias-text*

Syntax Description

alias-name	Name of the command alias. The alias name is an alphanumeric string that is not case sensitive and must begin with an alphabetic character. The maximum length is 30 characters.
alias-text	Alias text string. The command is alphanumeric, not case sensitive, can contain spaces and special characters, and has a maximum of 100 characters.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the command to create aliases for commands that you use frequently.

The Cisco NX-OS software has one predefined command alias called alias. You can use it to display the currently configured command aliases.

This command does not require a license.

Examples

This example shows how to configure a command alias:

```
switch# configure terminal
switch(config)# cli alias name crun
```

This example shows how to delete a command alias:

```
switch# configure terminal
switch(config)# no cli alias name crun
```

Related Commands

Command	Description
show cli alias	Displays information about the command alias configuration.

cli var name

To define a command-line interface (CLI) variable for a terminal session, use the **cli var name** command. To remove the CLI variable, use the **no** form of this command.

cli var name *variable-name variable-text*

cli no var name *variable-name*

Syntax Description

variable-name	Name of the variable. The name is alphanumeric, case sensitive, and has a maximum of 31 characters.
variable-text	Variable text. The text is alphanumeric, can contain spaces, and has a maximum of 200 characters.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can reference a CLI variable using the following syntax:

$(variable-name)

Instances where you can use variables include the following:

- Command scripts
- Filenames

You cannot reference a variable in the definition of another variable.

The Cisco NX-OS software provides predefined variable TIMESTAMP, which you can use to insert the time of day. You cannot change or remove the TIMESTAMP CLI variable.

You must remove a CLI variable before you can change its definition.

This command does not require a license.

Examples

This example shows how to define a CLI variable:

```
switch# cli var name testinterface interface 2/3
```

This example shows how to reference a CLI variable:

```
switch# cd slot0:
```

This example shows how to reference the TIMESTAMP variable:

```
switch# copy running-config > bootflash:run-config-$(TIMESTAMP).cnfg
```

This example shows how to remove a CLI variable:

```
switch# cli no var name testinterface interface 2/3
```

Related Commands

Command	Description
show cli variables	Displays the CLI variables.

clock set

To set the system clock of the Cisco NX-OS Nexus 7000 Series switch to a user-defined value, use the **clock set** command.

clock set *HH:MM:SS day month year*

Syntax Description

HH	Hour of the day. The range is from 00 to 24.
MM	Minute of the hour. The range if from 0 to 60.
SS	Second of the minute. The range is from 0 to 60.
day	Day of the month. The range is from 1 to 31.
month	Month of the year. The range is from January to December.
day	Calender year. The range is from 2000 to 2030.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **clock set** command to set the supervisor clock. Use the **clock protocol none** command before using the **clock set** command.

When you use the **clock set** command, NTP and PTP synchronization of the clock stops.

This command does not require a license.

Examples

This example shows how to set the system clock of the Cisco NX-OS Nexus 7000 Series switch to a user defined value:

```
switch# clock set 01:27:00 21 february 2011
Mon Feb 21 01:27:00 UTC 2011
switch#
```

Related Commands

Command	Description
clock protocol	Sets the system clock on a Cisco NX-OS Nexus 7000 Series switch.

clock protocol

To set the protocol for the clock on a virtual device context (VDC), use the **clock protocol** command. To remove the protocol settings of the clock on the VDC, use the **no** form of this command.

clock protocol {**ntp** | **ptp** | **none**} **vdc** *vdc-id*

no clock protocol {**ntp** | **ptp** |**none**} **vdc** *vdc-id*

Syntax Description

ptp	(Optional) Specifies the Precision Time Protocol (PTP).
ntp	(Optional) Specifies the Network Time Protocol (NTP).
none	(Optional) Specifies the user configured time
vdc	Specifies the VDC.
vdc-id	VDC ID. The range is from 1 to 8.

Defaults

Clock set protocol ntp vdc 1

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to set the PTP for a clock on a VDC:

```
switch# configure terminal
switch(config)# clock protocol ptp vdc 1
```

This example shows how to remove the PTP from a clock on a VDC:

```
switch(config)# no clock set protocol ptp vdc 1
```

Related Commands

Command	Description
clock set	Sets the system clock to a user-defined value.

clock summer-time

To configure the summer-time (daylight saving time) offset, use the **clock summer-time** command. To revert to the default, use the **no** form of this command.

clock summer-time *zone-name start-week start-day start-month start-time end-week end-day end-month end-time offset-minutes*

no clock summer-time

Syntax Description

zone-name	Zone name. The name is a three-character string that indicates a time zone (for example, PST or EST).
start-week	Week of the month to start the summer-time offset. The range is from 1 to 5.
start-day	Day of the month to start the summer-time offset. Valid values are **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, or **Sunday**.
start-month	Month to start the summer-time offset. Valid values are **January**, **February**, **March**, **April**, **May**, **June**, **July**, **August**, **September**, **October**, **November**, and **December**.
start-time	Time to start the summer-time offset. The format is *hh*:*mm*.
end-week	Week of the month to end the summer-time offset. The range is from 1 to 5.
end-day	Day of the month to end the summer-time offset. Valid values are **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, or **Sunday**.
end-month	Month to end the summer-time offset. Valid values are **January**, **February**, **March**, **April**, **May**, **June**, **July**, **August**, **September**, **October**, **November**, and **December**.
end-time	Time to end the summer-time offset. The format is *hh*:*mm*.
offset-minutes	Number of minutes to offset the clock. The range is from 1 to 1440.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure the offset for summer-time or daylight saving time:

```
switch# configure terminal
switch(config)# clock summer-time PDT 1 Sunday March 02:00 1 Sunday November 02:00 60
```

This example shows how to remove the summer-time offset:

```
switch# configure terminal
switch(config)# no clock summer-time
```

Related Commands

Command	Description
show clock	Displays the clock summer-time offset configuration.

clock timezone

To configure the time zone offset from Coordinated Universal Time (UTC), use the **clock timezone** command. To revert to the default, use the **no** form of this command.

clock timezone *zone-name offset-hours offset-minutes*

no clock timezone

Syntax Description

zone-name	Zone name is a three-character string that indicates a time zone (for example, PST or EST).
offset-hours	Number of hours offset from UTC. The range is from –23 to 23.
offset-minutes	Number of minutes offset from UTC. The range is from 0 to 59.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use this command to offset the device clock from UTC.

This command does not require a license.

Examples

This example shows how to configure the time zone offset from UTC:

```
switch# clock timezone EST 5 0
```

This example shows how to remove the time zone offset:

```
switch# no clock timezone
```

Related Commands

Command	Description
show clock	Displays the clock time.

configure terminal

To enter global configuration mode, use the **configure terminal** command.

configure terminal

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **configure terminal** command to enter global configuration mode. The commands that you enter in this mode are written to the running configuration file after you press the **Enter** key.

This command does not require a license.

Examples

This example shows how to enter global configuration mode:

```
switch# configure terminal
switch(config)#
```

Related Commands

Command	Description
where	Displays the current configuration mode context.

copy scheduled-config

To configure a file containing cli commands to be applied on the next reboot, use the **copy scheduled-config** command.

copy *filename* **scheduled-config**

Syntax Description

scheduled-config	Specifies the schedule configuration at the specified source to be applied at next switch reload.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
6.1(2)	This command was introduced.

Usage Guidelines

This command need to be called explicitly within the poap script to allow the poap boot-up process to continue at the next reboot. When PowerOn Auto-Provisioning (POAP) is in progress, any important information or errors are displayed over the serial console aiding the administrator to troubleshoot in case of problems.

This command does not require a license.

Note This is used in POAP script.

Examples

This example shows how to specify file “abc” to be applied to running-config at the next switch reload:

```
switch# configure terminal
switch(config)# copy asdf scheduled-config
switch(config)#
```

Related Commands

Command	Description
dir	Displays the directory contents.

copy

To copy one file from another, use the **copy** command.

copy *source-url destination-url*

Syntax Description

source-url	Location uniform resource locator (URL) or variable of the source file or directory to be copied. The source can be either local or remote, depending upon whether the file is being downloaded or uploaded. For information about the URL prefix keywords, see the "Usage Guidelines" section.
destination-url	Destination URL or variable of the copied file or directory. The destination can be either local or remote, depending upon whether the file is being downloaded or uploaded. For information about the URL prefix keywords, see the "Usage Guidelines" section.

Defaults

The default name for the destination file is the source filename.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The **copy** command allows you to copy a file (such as a system image or configuration file) from one location to another location. The source and destination for the file is specified by using a Cisco NX-OS file system URL, which allows you to specify a local or remote file location. The file system being used (such as a local memory source or a remote server) determines the syntax used in the command.

You can enter on the command line all necessary source- and destination-URL information and the username to use, or you can enter the **copy** command and have the CLI prompt you for any missing information.

The entire copying process may take several minutes, depending on the network conditions and the size of the file, and differs from protocol to protocol and from network to network.

The colon character (**:**) is required after the file system URL prefix keywords (such as **bootflash**).

In the URL syntax for **ftp:**, **scp:**, **sftp:**, and **tftp:**, the server is either an IPv4 address or a hostname.

The format of the source and destination URLs varies according to the file or directory location. You can enter either a command-line interface (CLI) variable for a directory or a filename that follows the Cisco NX-OS file system syntax in this format: *filesystem*:[*/directory*][*/filename*].

The following tables list URL prefix keywords by the file system type. If you do not specify a URL prefix keyword, the switch looks for a file in the current directory.

Table 1 lists URL prefix keywords for local writable storage file systems. Table 2 lists the URL prefix keywords for remote file systems. Table 3 lists the URL prefix keywords for nonwritable file systems.

This command does not require a license.

Copying Files from a Server to Bootflash Memory

Use the **copy** *source-url* **bootflash:** command (for example, **copy tftp:***source-url* **bootflash:**) to copy an image from a server to the local bootflash memory.

Copying a Configuration File from a Server to the Running Configuration

Use the **copy** {**ftp:** | **scp:** | **sftp:** | **tftp:**}*source-url* **running-config** command to download a configuration file from a network server to the running configuration of the device. The configuration is added to the running configuration as if the commands were typed in the CLI. The resulting configuration file is a combination of the previous running configuration and the downloaded configuration file. The downloaded configuration file has precedence over the previous running configuration.

You can copy either a host configuration file or a network configuration file. Accept the default value of *host* to copy and load a host configuration file containing commands that apply to one network server in particular. Enter *network* to copy and load a network configuration file that contains commands that apply to all network servers on a network.

Copying a Configuration File from a Server to the Startup Configuration

Use the **copy** {**ftp:** | **scp:** | **sftp:** | **tftp:**}*source-url* **startup-config** command to copy a configuration file from a network server to the switch startup configuration. These commands replace the startup configuration file with the copied configuration file.

Copying the Running or Startup Configuration on a Server

Use the **copy running-config** {**ftp:** | **scp:** | **sftp:** | **tftp:**}*destination-url* command to copy the current configuration file to a network server that uses FTP, SCP, SFTP, or TFTP. Use the **copy startup-config** {**ftp:** | **scp:** | **stfp:** | **tftp:**}*destination-url* command to copy the startup configuration file to a network server.

You can use the copied configuration file as a backup.

Table 1, Table 2, and Table 3, list the URL prefix keywords.

Table 1 URL Prefix Keywords for Local Writable Storage File Systems

Keyword	Source or Destination
bootflash:[**//***module***/**]	Source or destination URL for boot flash memory. The *module* argument value is **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**.
slot0:[**//***module***/**]	Source or destination URL of the external PCMCIA Flash memory device. The *module* argument value is **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**.
usb0:[**//***module***/**] **usb1:**[**//***module***/**]	Source or destination URL for the external Universal Serial Bus (USB) Flash memory devices. The *module* argument value is **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**.

Table 2 URL Prefix Keywords for Remote File Systems

Keyword	Source or Destination
ftp:	Source or destination URL for an FTP network server. The syntax for this alias is as follows: **ftp:**[**//***server*][*/path*]*/filename*
scp:	Source or destination URL for a network server that supports Secure Shell (SSH) and accepts copies of files using the Secure Copy Protocol (SCP). The syntax for this alias is as follows: **scp:**[**//**[*username*@]*server*][**/***path*]**/***filename*
sftp:	Source or destination URL for an SSH FTP (SFTP) network server. The syntax for this alias is as follows: **sftp:**[**//**[*username*@]*server*][**/***path*]**/***filename*
tftp:	Source or destination URL for a Trivial FTP (TFTP) network server. The syntax for this alias is as follows: **tftp:**[**//***server*[**:***port*]][**/***path*]**/***filename*

Table 3 URL Prefix Keywords for Special File Systems

Keyword	Source or Destination
core:	Local memory for core files. You can copy core files from the core: file system.
debug:	Local memory for debug files. You can copy core files from the debug: file system.
log:	Local memory for log files. You can copy log files from the log: file system.
logflash:	External memory for log files. You can copy log files from the logflash: file system.
nvram:	Local NVRAM. You can copy the startup configuration to or from the nvram: file system. The nvram: file system is optional when referencing the startup-config file in a command.
system:	Local system memory. You can copy the running configuration to or from the system: file system. The system: file system is optional when referencing the running-config file in a command.
volatile:	Local volatile memory. You can copy files to or from the volatile: file system. All files in the volatile: memory are lost when the physical device reloads.

Examples

This example shows how to copy a file within the same directory:

```
switch# copy file1 file2
```

This example shows how to copy a file to another directory:

```
switch# copy file1 my_files:file2
```

This example shows how to copy a file to another file system:

```
switch# copy file1 slot0:
```

This example shows how to copy a file to another supervisor module:

```
switch# copy file1 bootflash://sup-remote/file1.bak
```

This example shows how to copy a file from a remote server:

```
switch# copy scp://10.10.1.1/image-file.bin bootflash:image-file.bin
```

Related Commands

Command	Description
cd	Changes the current working directory.
cli var name	Configures CLI variables for the session.
dir	Displays the directory contents.
move	Moves a file.
pwd	Displays the name of the current working directory.

copy running-config startup-config

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

copy running-config startup-config

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

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

This command does not require a license.

Examples

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

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

Related Commands

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

databits

To configure the number of data bits in a character for the COM1 port or console port, use the **databits** command. To revert to the default, use the **no** form of this command.

databits *bits*

no databits *bits*

Syntax Description

bits	Number of data bits in a character. The range is from 5 to 8.

Defaults

8 bits

Command Modes

COM1 port configuration mode
Console port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **databits** command only in the default virtual device context (VDC).

You can configure the console and COM1 ports only from a session on the console port.

This command does not require a license.

Examples

This example shows how to configure the number of data bits for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# databits 7
```

This example shows how to configure the number of data bits for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# databits 7
```

This example shows how to revert to the default number of data bits for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# no databits 7
```

This example shows how to revert to the default number of data bits for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no databits 7
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

delete

To delete a file, use the **delete** command.

delete [*filesystem*:[*//directory/*] | *directory/*]*filename*

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **slot0**, **usb1**, **usb2**, or **volatile**.
//directory/	(Optional) Name of the directory. The directory name is case sensitive.
filename	Name of the file. The name is case sensitive.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **dir** command to locate the file that you want to delete.

This command does not require a license.

Examples

This example shows how to delete a file:

```
switch# delete bootflash:old_config.cfg
```

Related Commands

Command	Description
dir	Displays the contents of a directory.

diff-clean

To remove the temporary files created automatically when you use diff filtering in **show** commands, use the **diff-clean** command.

diff-clean [**all-sessions** | **all-users**]

Syntax Description

all-sessions	(Optional) Removes the temporary files for all sessions, current and past, for the current user.
all-users	(Optional) Removes the temporary files for all sessions, current and past, for all users.

Defaults

Removes the temporary files for the current session of the current user.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to remove the temporary files for the current session of the current user:

```
switch# diff-clean
```

This example shows how to remove the temporary files for the current session and all past sessions of the current user:

```
switch# diff-clean all-sessions
```

This example shows how to remove the temporary files for the current session and all past sessions of all users:

```
switch# diff-clean all-users
```

dir

To display the contents of a directory, use the **dir** command.

dir [*filesystem***:**[*//directory/*] | *directory/*]

Syntax Description

*filesystem***:**	(Optional) Name of the file system. Valid values are **bootflash**, **debug**, **log**, **logflash**, **slot0**, **usb1**, **usb2**, or **volatile**.
//directory/	(Optional) Name of the directory. The directory name is case sensitive.

Defaults

Displays the contents of the current working directory.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **pwd** command to verify the current working directory.

Use the **cd** command to change the current working directory.

This command does not require a license.

Examples

This example shows how to display the contents of the root directory in bootflash:

```
switch# dir bootflash:
```

This example shows how to display the contents of the current working directory:

```
switch# dir
```

Related Commands

Command	Description
cd	Changes the current working directory.
pwd	Displays the name of the current working directory.

echo

To display a text string on the terminal session, use the **echo** command.

echo [**backslash-interpret**] [*text*]

Syntax Description

backslash-interpret	(Optional) Interprets any character following a backslash character (\) as a formatting option.
text	(Optional) Text string to display. The text string is alphanumeric, case sensitive, can contain spaces, and has a maximum length of 200 characters. The text string can also contain references to CLI variables.

Defaults

Displays a blank line.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(3)	Replaced the **-e** keyword with the **backslash-interpret** keyword.
4.0(1)	This command was introduced.

Usage Guidelines

Use the **echo** command in a command script to display information while the script is running.

Table 4 lists the formatting keywords that you can insert in the text when you include the **backslash-interpret** keyword.

Table 4 Formatting Options for the echo Command

Formatting Option	Description
\b	Back spaces.
\c	Removes the new line character at the end of the text string.
\f	Inserts a form feed character.
\n	Inserts a new line character.
\r	Returns to the beginning of the text line.
\t	Inserts a horizontal tab character.
\v	Inserts a vertical tab character.

Table 4 Formatting Options for the echo Command (continued)

Formatting Option	Description
\\	Displays a backslash character.
nnn	Displays the corresponding ASCII octal character.

This command does not require a license.

Examples

This example shows how to display a blank line at the command prompt:

```
switch# echo
```

This example shows how to display a line of text at the command prompt:

```
switch# echo Script run at $(TIMESTAMP).
Script run at 2008-08-12-23.29.24.
```

This example shows how to use a formatting option in the text string:

```
switch# echo backslash-interpret This is line #1. \nThis is line #2.
This is line #1.
This is line #2.
```

Related Commands

Command	Description
run-script	Runs command scripts.

end

To exit a configuration mode and return to EXEC mode, use the **end** command.

end

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to return to EXEC mode from global configuration mode:

```
switch(config)# end
switch#
```

This example shows how to return to EXEC mode from interface configuration mode:

```
switch(config-if)# end
switch#
```

Related Commands

Command	Description
exit	Returns to the previous command mode.

exec-timeout

To configure the inactive session timeout on the console port or the virtual terminal, use the **exec-timeout** command. To revert to the default, use the **no** form of this command.

exec-timeout *minutes*

no exec-timeout

Syntax Description

minutes	Number of minutes. The range is from 0 to 525600. A setting of 0 minutes disables the timeout.

Defaults

0 minutes

Command Modes

Console port configuration mode
Line configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **exec-timeout** command only in the default virtual device context (VDC).

You can configure the console ports only from a session on the console port.

This command does not require a license.

Examples

This example shows how to configure the inactive session timeout for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-com1)# exec-timeout 30
```

This example shows how to configure the inactive session timeout for the virtual terminal:

```
switch# configure terminal
switch(config)# line vty
switch(config-line)# exec-timeout 30
```

This example shows how to revert to the default inactive session timeout for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-com1)# no exec-timeout
```

This example shows how to revert to the default inactive session timeout for the virtual terminal:

```
switch# configure terminal
switch(config)# line vty
switch(config-line)# no exec-timeout
```

Related Commands

Command	Description
show running-config	Displays the running configuration.

exit

To exit a configuration mode and return to the previous configuration mode, use the **exit** command.

exit

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to return to EXEC mode from global configuration mode:

```
switch(config)# exit
switch#
```

This example shows how to return to global configuration mode from interface configuration mode:

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

Related Commands

Command	Description
end	Returns to the EXEC command mode.

feature pong

To enable the Pong feature, use the **feature pong** command. To disable the Pong feature, use the **no** form of this command.

feature pong

no feature pong

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to enable the Pong feature:

```
switch# configure terminal
switch(config)# feature pong
```

This example shows how to disable the Pong feature:

```
switch# configure terminal
switch(config)# no feature pong
```

Related Commands

Command	Description
feature ptp	Enables the Precision Time Protocol (PTP) feature. This command is documented in the *Cisco Nexus 7000 Series NX-OS System Management Command Reference*.
pong	Starts the pong service on the current virtual device context (VDC).

feature-set

To enable a feature set on a virtual device context (VDC), use the **feature-set** command. To disable a feature set on a VDC, use the **no** form of this command.

feature-set [**fcoe | fex | l2mp**]

no feature-set [**fcoe | fex | l2mp**]

Syntax Description

fcoe	(Optional) Specifies Fibre Channel over Ethernet.
fex	(Optional) Specifies the Fabric Extender (FEX).
l2mp	(Optional) Specifies FabricPath.

Defaults

None

Command Modes

config-vdc mode

SupportedUserRoles

network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to enable a feature set on a VDC:

```
switch(config)# vdc 1
switch(config-vdc)# install feature-set l2mp
switch(config-vdc)# allow feature-set l2mp
switch(config-vdc)# feature-set l2mp
switch(config-vdc)#
```

This example shows how to disable a feature set on a VDC:

```
switch(config)# vdc 1
switch(config-vdc)# no feature-set l2mp
switch(config-vdc)#
```

Related Commands

Command	Description
allow feature-set	Allows a virtual device context (VDC) to enable a feature set.
install feature-set	Installs a feature set.

find

To find filenames beginning with a character string, use the **find** command.

find *filename-prefix*

Syntax Description

filename-prefix	First part or all of a filename. The filename prefix is a case sensitive, alphanumeric string with a maximum of 64 characters.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The **find** command searches all subdirectories under the current working directory. Use the **cd** and **pwd** commands to navigate to the starting directory.

This command does not require a license.

Examples

This example shows how to display filenames beginning with ospf:

```
switch# find ospf
/usr/bin/find: ./lost+found: Permission denied
./ospf-gr.cfg
./ospfgrconfig
./ospf-gr.conf
```

Related Commands

Command	Description
cd	Changes the current working directory.
pwd	Displays the name of the current working directory.

flowcontrol hardware

To enable flow control on the COM1 port, use the **flowcontrol hardware** command. To disable flow control, use the **no** form of this command.

flowcontrol hardware

no flowcontrol hardware

Syntax Description

This command has no arguments or keywords.

Defaults

Enabled

Command Modes

COM1 port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **flowcontrol hardware** command only in the default virtual device context (VDC).

You can configure the COM1 ports only from a session on the console port or COM1 port.

This command does not require a license.

Examples

This example shows how to enable flow control for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# flowcontrol hardware
```

This example shows how to disable flow control for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# no flowcontrol hardware
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

format

To format an external Flash device to erase the contents and restore it to its factory-shipped state, use the **format** command.

format *filesystem***:**

Syntax Description

*filesystem***:**	Name of the file system. The valid values are **slot0**, **usb1**, or **usb2**.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use this command only in the default virtual device context (VDC).

Note For information about formatting and recovering a corrupted bootflash, see the *Cisco Nexus 7000 Series NX-OS Troubleshooting Guide*.

This command does not require a license.

Examples

This example shows how to format an external Flash device:

```
switch# format slot0:
```

Related Commands

Command	Description
cd	Changes the current working directory.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

gunzip

To uncompress a compressed file, use the **gunzip** command.

gunzip *filename*

Syntax Description

filename	Name of a file. The filename is case sensitive.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The compressed filename must have the .gz extension. You do not have to enter the .gz extension as part of the filename.

The Cisco NX-OS software uses Lempel-Ziv 1977 (LZ77) coding for compression.

This command does not require a license.

Examples

This example shows how to uncompress a compressed file:

```
switch# gunzip run_cnfg.cfg
```

Related Commands

Command	Description
dir	Displays the directory contents.
gzip	Compresses a file.

gzip

To compress a file, use the **gzip** command.

gzip *filename*

Syntax Description

filename	Name of a file. The filename is case sensitive.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

After you use this command, the file is replaced with the compressed filename that has the .gz extension.

The Cisco NX-OS software uses Lempel-Ziv 1977 (LZ77) coding for compression.

This command does not require a license.

Examples

This example shows how to compress a file:

```
switch# gzip run_cnfg.cfg
```

Related Commands

Command	Description
dir	Displays the directory contents.
gunzip	Uncompresses a compressed file.

hostname

To configure the hostname for the device, use the **hostname** command. To revert to the default, use the **no** form of this command.

hostname *name*

no hostname

Syntax Description

name	Name for the device. The name is alphanumeric, case sensitive, can contain special characters, and can have a maximum of 32 characters.

Defaults

switch

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The Cisco NX-OS software uses the hostname in command-line interface (CLI) prompts and in default configuration filenames.

The **hostname** command performs the same function as the **switchname** command.

This command does not require a license.

Examples

This example shows how to configure the device hostname:

```
switch# configure terminal
switch(config)# hostname Engineering2
Engineering2(config)#
```

This example shows how to revert to the default device hostname:

```
Engineering2# configure terminal
Engineering2(config)# no hostname
switch(config)#
```

Related Commands

Command	Description
show hostname	Displays the device hostname.
switchname	Configures the device hostname.

install all

To install the kickstart and system images on your Cisco NX-OS device, use the **install all** command.

install all
[**kickstart** {**bootflash:** | **ftp:**[*//server*][*/path*] | **scp:**[*//*[*username@*]*server*][*/path*] | **sftp:**[*//*[*username@*]*server*][*/path*] | **slot0:** | **tftp:**[*//server*[**:***port*]][*/path*] | **volatile:**}*kickstart-filename*]
[**system** {**bootflash:** | **ftp:**[*//server*][*/path*] | **scp:**[*//*[*username@*]*server*][*/path*] | **sftp:**[*//*[*username@*]*server*][*/path*] | **slot0:** | **tftp:**[*//server*[**:***port*]][*/path*] | **volatile:**}*system-filename*]

Syntax Description

kickstart	(Optional) Specifies the kickstart image file.
bootflash:	Specifies the internal Flash memory.
ftp:	Uses FTP to download the file.
//server	(Optional) Server IPv4 address or name. The name is case sensitive.
/path	(Optional) Path to the file. The name is case sensitive.
scp:	Uses Secure Copy Protocol (SCP) to download the file.
username@	(Optional) Username on the server. The name is case sensitive.
sftp:	Uses Secure Shell FTP (SFTP) to download the file.
slot0:	Specifies external Flash memory.
tftp:	Uses Trivial FTP (TFTP) to download the file.
port	(Optional) Port number.
volatile:	Specifies the volatile memory on the device.
kickstart-filename	Name of the kickstart image file. The name is case sensitive.
system	(Optional) Specifies the system image file.
system-filename	Name of the system image file. The name is case sensitive.

Defaults

If you do not enter any parameters, the boot variable values are used.

The path is the default for the user on the remote server.

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

If you do not enter the information about the server or username when downloading and installing the image files from a remote server, you will be prompted for the information.

This command sets the kickstart and system boot variables and copies the image files to the redundant supervisor module.

You can use the **install all** command to downgrade the Cisco NX-OS software on the device. To determine the incompatibility of the downgrade Cisco NX-OS software with the current Cisco NX-OS configuration on the device, use the **show incompatibility system** command.

This command installs Cisco NX-OS software only on devices with dual supervisor modules. To install new Cisco NX-OS software on a device with a single supervisor, you must use the **reload** command to boot the system after you use the **install all** command. For information on upgrading and downgrading images on your Cisco NX-OS device, see the *Cisco Nexus 7000 Series NX-OS Software Upgrade and Downgrade Guide*.

The **install all** command does not install electronically programmable logical device (EPLD) images.

This command does not require a license.

Examples

This example shows how to install the Cisco NX-OS software from the bootflash: directory:

```
switch# install all kickstart bootflash:nx-os_kick.bin system bootflash:nx-os_sys.bin
```

This example shows how to install the Cisco NX-OS software using the values configured in the kickstart and system boot variables:

```
switch# configure terminal
switch(config)# boot kickstart bootflash:nx-os_kick.bin
switch(config)# boot system bootflash:nx-os_sys.bin
switch(config)# exit
switch# copy running-config startup-config
switch# install all
```

This example shows how to install the Cisco NX-OS software from an SCP server:

```
switch# install all kickstart scp://adminuser@10.10.1.1/nx-os_kick.bin system
bootflash:scp://adminuser@10.10.1.1/nx-os_sys.bin
```

Related Commands

Command	Description
boot kickstart	Configures the boot variable for the kickstart image.
boot system	Configures the boot variable for the system image.
reload	Reloads the device with the new Cisco NX-OS software.
show incompatibility system	Displays configuration incompatibilities between Cisco NX-OS system software images.
show version	Displays information about the software version.

install all epld

To upgrade the electronic programmable logical device (EPLD) image, use the **install all epld** command.

install all epld [**bootflash:** *epld-image-name* | **slot0:** *epld-image-name* | **volatile:** *epld-image-name*]

Syntax Description

bootflash:	(Optional) Specifies the internal flash memory.
epld-image-name	Name of the EPLD image file. The name is case sensitive.
slot0:	(Optional) Specifies the external flash memory.
volatile:	(Optional) Specifies the volatile memory on the device.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2 (1)	This command was introduced.

Usage Guidelines

Follow these guidelines when you upgrade or downgrade the EPLD:

- You can perform an upgrade from the active supervisor module only. All the modules, including the active supervisor module, can be updated individually.
- You can individually update each module whether it is online or offline as follows:
  - If you upgrade EPLD images on an online module, only the EPLD images with version numbers that differ from the new EPLD images are upgraded.
  - If you upgrade EPLD images on an offline module, all of the EPLD images are upgraded.
- On a switch that has two supervisor modules, upgrade the EPLDs for the standby supervisor and then switch the active supervisor to standby mode to upgrade its EPLDs (the supervisor switchover is not disruptive to traffic on Cisco Nexus 7000 switches). On a switch that has only one supervisor module, you can upgrade the active supervisor, but this will disrupt its operations during the upgrade.
- If you interrupt an upgrade, you must upgrade the module that is being upgraded again.
- The upgrade process disrupts traffic on the targeted module.
- Do not insert or remove any modules while an EPLD upgrade is in progress.

This command does not require a license.

Examples

This example shows how to upgrade a Cisco NX-OS EPLD image:

```
switch# install all epld bootflash:n7000-s1-epld.4.2.1.img

Compatibility check:
Module  Type  Upgradable        Impact   Reason
------  ----  ----------    ----------   ------
     3    LC         Yes    disruptive   Module Upgradable
     5   SUP         Yes    disruptive   Module Upgradable
     7    LC         Yes    disruptive   Module Upgradable
     9    LC         Yes    disruptive   Module Upgradable
     1  Xbar         Yes    disruptive   Module Upgradable
     2  Xbar         Yes    disruptive   Module Upgradable
     3  Xbar         Yes    disruptive   Module Upgradable
     1   FAN         Yes    disruptive   Module Upgradable
     2   FAN         Yes    disruptive   Module Upgradable
     3   FAN         Yes    disruptive   Module Upgradable
     4   FAN         Yes    disruptive   Module Upgradable

Retrieving EPLD versions... Please wait.

Images will be upgraded according to following table:
Module  Type           EPLD      Running-Version   New-Version  Upg-Required
------  ----  -------------      ---------------   -----------  ------------
     3    LC  Power Manager                  5.4           5.6           Yes
     3    LC  IO                            2.11          2.13           Yes
     3    LC  Forwarding Engine             1.6           1.6             No
     5   SUP  Power Manager                  3.7           3.9            Yes
     5   SUP  IO                            3.26          3.28           Yes
     5   SUP  Inband                        1.7           1.8            Yes
     5   SUP  Local Bus CPLD                3.0           3.0             No
     5   SUP  CMP CPLD                      6.0           6.0             No
     7    LC  Power Manager                  4.6           4.8            Yes
     7    LC  IO                            1.14          1.15           Yes
     7    LC  Forwarding Engine             1.6           1.6             No
     7    LC  FE Bridge(1)                186.3         186.3             No
     7    LC  FE Bridge(2)                186.3         186.3             No
     7    LC  Linksec Engine(1)             1.8           2.2            Yes
     7    LC  Linksec Engine(2)             1.8           2.2            Yes
     7    LC  Linksec Engine(3)             1.8           2.2            Yes
     7    LC  Linksec Engine(4)             1.8           2.2            Yes
     7    LC  Linksec Engine(5)             1.8           2.2            Yes
     7    LC  Linksec Engine(6)             1.8           2.2            Yes
     7    LC  Linksec Engine(7)             1.8           2.2            Yes
     7    LC  Linksec Engine(8)             1.8           2.2            Yes
     9    LC  Power Manager                  5.4           5.6           Yes
     9    LC  IO                            2.11          2.13           Yes
     9    LC  Forwarding Engine             1.6           1.6             No
     1  Xbar  Power Manager                  2.9           2.10           Yes
     2  Xbar  Power Manager                  2.9           2.10           Yes
     3  Xbar  Power Manager                  2.9           2.10           Yes
     1   FAN  Fan Controller (1)             0.5           0.7            Yes
     1   FAN  Fan Controller (2)             0.5           0.7            Yes
     2   FAN  Fan Controller (1)             0.5           0.7            Yes
     2   FAN  Fan Controller (2)             0.5           0.7            Yes
     3   FAN  Fan Controller (1)             0.5           0.7            Yes
     3   FAN  Fan Controller (2)             0.5           0.7            Yes
     4   FAN  Fan Controller (1)             0.4           0.7            Yes
     4   FAN  Fan Controller (2)             0.4           0.7            Yes
The above modules require upgrade.
Do you want to continue (y/n) ?  [n]
```

Related Commands

Command	Description
install all	Installs the kickstart and system images on the Cisco NX-OS device.
reload	Reloads the device with the new Cisco NX-OS software.
show incompatibility system	Displays configuration incompatibilities between Cisco NX-OS system software images.
show version	Displays information about the software version.

install all parallel

To upgrade the line cards in the system concurrently, use the **install all parallel** command.

install all parallel

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines You can upgrade up to three line cards concurrently by using the **install all parallel** command.

The parallel **install all parallel** is supported only when you are upgrading from Cisco NX-OS Release 5.2 to a later release.

This command does not require a license.

Examples This example shows how to upgrade the line cards in the system concurrently:

```
switch(config)# install all parallel
```

Related Commands

Command	Description
boot kickstart	Configures the boot variable for the kickstart image.
boot system	Configures the boot variable for the system image.
reload	Reloads the device with the new Cisco NX-OS software.
show incompatibility system	Displays configuration incompatibilities between Cisco NX-OS system software images.

install fan-module epld

To install an electronically programmable logical device (EPLD) image on a fan module, use the **install fan-module epld** command.

install fan-module *slot* **epld** {**bootflash: | slot0: | volatile:**}*filename*

Syntax Description

slot	Slot number in chassis.
bootflash:	Specifies the internal Flash memory.
slot0:	Specifies the external Flash memory.
volatile:	Specifies the volatile memory.
filename	Name of the EPLD image file.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You must copy the EPLD image file to local storage before you can install it.

Enter the **install fan-module epld** command from the active supervisor module to update any other module.

Use the **show version fan** *slot* **epld** command to display the EPLD version for a fan module.

Caution Do not insert or remove any modules while an EPLD upgrade or downgrade is in progress.

This command does not require a license.

Examples

This example shows how to install an EPLD image on a module:

```
switch# install fan-module 1 epld bootflash:n7000-s1-epld.4.0.2.bin
```

Related Commands

Command	Description
copy	Copies files.
show version	Displays information about the software version.

install feature-set

To install a feature set on a module, use the **install feature-set** command. To uninstall a feature set from a module, use the **no** form of this command.

install feature-set [**fcoe** | **fex** | **l2mp**]

no install feature-set [**fcoe** | **fex** | **l2mp**]

Syntax Description

fcoe	(Optional) Specifies Fibre Channel over Ethernet.
fex	(Optional) Specifies the Fabric Extender.
l2mp	(Optional) Specifies FabricPath.

Defaults

None

Command Modes

config-vdc mode

SupportedUserRoles

network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to install a feature set:

```
switch(config)# install feature-set l2mp
switch(config)#
```

This example shows how to uninstall a feature set:

```
switch(config)# no install feature-set l2mp
switch(config)#
```

Related Commands

Command	Description
allow feature-set	Allows a feature set on a virtual device context (VDC).
feature-set	Enables a feature set.

install license

To install a license, use the **install license** command.

install license {**bootflash:** | **slot0:** | **usb0:** | **usb1:**}*src-filename* [*target-filename*]

Syntax Description

bootflash:	Specifies the internal Flash memory source location for the license file.
slot0:	Specifies the external Flash memory source location for the license file.
usb0:	Specifies the external USB memory source location for the license file.
usb1:	Specifies the external USB memory source location for the license file.
src-filename	Name of the source license file.
target-filename	(Optional) Name of the target license file.

Defaults

No license is installed.

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

If a target filename is provided after the source location, the license file is installed with that name. Otherwise, the filename in the source uniform resource locator (URL) is used. This command also verifies the license file before installing it.

For information on installing licenses on your Cisco NX-OS device, see the *Cisco Nexus 7000 Series NX-OS Licensing Guide*.

This command does not require a license.

Examples

This example shows how to install a file named “license-file” that resides in the bootflash: directory:

```
switch# install license bootflash:license-file
```

Related Commands

Command	Description
show license	Displays license information.

install module epld

To install an electronically programmable logical device (EPLD) image on an I/O module, use the **install module epld** command.

install module *slot* **epld** {**bootflash: | slot0: | volatile:**}*filename*

Syntax Description

slot	Slot number in chassis. The range is from 1 to 18.
bootflash:	Specifies the internal Flash memory.
slot0:	Specifies the external Flash memory.
volatile:	Specifies the volatile memory.
filename	Name of the EPLD image file.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You must copy the EPLD image file to local storage before you can install it.

Enter the **install module epld** command from the active supervisor module to update any other module.

Use the **show version module** *slot* **epld** command to display the EPLD version for a fabric module.

Caution Do not insert or remove any modules while an EPLD upgrade or downgrade is in progress.

This command does not require a license.

Examples

This example shows how to install an EPLD image on a fabric module:

```
switch# install module 2 epld bootflash:n7000-s1-epld.4.0.2.bin
```

Related Commands

Command	Description
copy	Copies files.
show version	Displays information about the software version.

install xbar-module epld

To install an electronically programmable logical device (EPLD) image on a fabric module, use the **install xbar-module epld** command.

install xbar-module *slot* **epld** {**bootflash:** | **slot0:** | **volatile:**}*filename*

Syntax Description

slot	Slot number in chassis. The range is from 1 to 18.
bootflash:	Specifies the internal Flash memory.
slot0:	Specifies the external Flash memory.
volatile:	Specifies the volatile memory.
filename	Name of the EPLD image file.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You must copy the EPLD image file to local storage before you can install it.

Enter the **install xbar-module epld** command from the active supervisor module to update any other module.

Use the **show version xbar** *slot* **epld** command to display the EPLD version for an I/O module.

Caution Do not insert or remove any modules while an EPLD upgrade or downgrade is in progress.

This command does not require a license.

Examples

This example shows how to install an EPLD image on an I/O module:

```
switch# install xbar-module 2 epld bootflash:n7000-s1-epld.4.0.2.bin
```

Related Commands

Command	Description
copy	Copies files.
show version	Displays information about the software version.

line com1

To specify the COM1 port and enter COM1 port configuration mode, use the **line com1** command.

line com1

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Global configuration mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines You can configure the COM1 line from a console port session or a COM1 port session.

This command does not require a license.

Examples This example shows how to enter COM1 port configuration mode:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)#
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

line console

To specify the console port and enter console port configuration mode, use the **line console** command.

line console

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **line console** command only in the default virtual device context (VDC).

You can configure the console line only from a console port session.

This command does not require a license.

Examples

This example shows how to enter console port configuration mode:

```
switch# configure terminal
switch(config)# line console
switch(config-console)#
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

line vty

To specify the virtual terminal and enter line configuration mode, use the **line vty** command.

line vty

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Global configuration mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to enter the line configuration mode:

```
switch# configure terminal
switch(config)# line vty
switch(config-line)#
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

modem connect line

To notify the Cisco NX-OS device that you connected a modem, use the **modem connect line** command.

modem connect line {**com1** | **console**}

Syntax Description

com1	Specifies that you have connected the modem to the COM1 port.
console	Specifies that you have connected the modem to the console port.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.1(2)	This command was introduced.

Usage Guidelines

You can use the **modem connect line** command only in the default virtual device context (VDC).

This command does not require a license.

Examples

This example shows how to notify the device that you have connected a modem to the COM1 port:

```
switch# modem connect line com1
```

This example shows how to notify the device that you have connected a modem to the console port:

```
switch# modem connect line console
```

Related Commands

Command	Description
modem in	Enables the modem connection on the COM1 port or console port.
show line	Displays information about the COM1 and console port configuration.

modem in

To enable the modem connection on the COM1 or console port, use the **modem in** command. To disable the modem connection, use the **no** form of this command.

modem in

no modem in

Syntax Description

This command has no arguments or keywords.

Defaults

Disabled

Command Modes

COM1 port configuration mode
Console port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **modem in** command only in the default virtual device context (VDC).

You can configure the console and COM1 ports only from a session on the console port.

This command does not require a license.

Examples

This example shows how to enable a modem connection on the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# modem in
```

This example shows how to enable a modem connection on the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# modem in
```

This example shows how to disable a modem connection on the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no modem in
```

Related Commands

Command	Description
line com1	Enters COM1 port configuration mode.
line console	Enters console port configuration mode.
show line	Displays information about the COM1 and console port configuration.

modem init-string

To download the initialization string to a modem connected to the COM1 or console port, use the **modem init-string** command. To revert to the default, use the **no** form of this command.

modem init-string {**default** | **user-input**}

no modem init-string

Syntax Description

default	Downloads the default initialization string.
user-input	Downloads the user-input initialization string.

Defaults

The default initialization string is ATE0Q1&D2&C1S0=1\015.

Command Modes

COM1 port configuration mode
Console port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **modem init-string** command only in the default virtual device context (VDC).

You can configure the console and COM1 ports only from a session on the console port.

The default initialization string ATE0Q1&D2&C1S0=1\015 is defined as follows:

- AT—Attention
- E0 (required)—No echo
- Q1—Result code on
- &D2—Normal data terminal ready (DTR) option
- &C1—Enable tracking the state of the data carrier
- S0=1—Pick up after one ring
- \015 (required)—Carriage return in octal

Use the **modem set-string** command to configure the user-input initialization string.

This command does not require a license.

Examples

This example shows how to download the default initialization string to the modem connected to the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# modem init-string default
```

This example shows how to download the default initialization string to the modem connected to the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# modem init-string default
```

This example shows how to download the user-input initialization string to the modem connected to the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# modem init-string user-input
```

This example shows how to download the user-input initialization string to the modem connected to the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# modem init-string user-input
```

This example shows how to revert to the default initialization string for the modem connected to the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# no modem init-string
```

This example shows how to revert to the default initialization string for the modem connected to the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no modem init-string
```

Related Commands

Command	Description
line com1	Enters COM1 port configuration mode.
line console	Enters console port configuration mode.
modem set-string user-input	Configures the user-input initialization string for a modem.
show line	Displays information about the COM1 and console port configuration.

modem restart line

To restart a modem connection on the COM1 port or console port, use the **modem restart line** command.

modem restart line {**com1** | **console**}

Syntax Description

com1	Restarts the modem on the COM1 port.
console	Restarts the modem on the console port.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.1(2)	This command was introduced.

Usage Guidelines

You can use the **modem restart line** command only in the default virtual device context (VDC).

This command does not require a license.

Examples

This example shows how to restart a modem connected to the COM1 port:

```
switch# modem restart line com1
```

This example shows how to restart a modem connected to the console port:

```
switch# modem restart line console
```

Related Commands

Command	Description
modem in	Enables the modem connection on the COM1 port or console port.
show line	Displays information about the COM1 and console port configuration.

modem set-string user-input

To configure the user-input initialization string to download to a modem connected to the COM1 or console port, use the **modem set-string user-input** command. To revert to the default, use the **no** form of this command.

modem set-string user-input *string*

no modem set-string

Syntax Description

string	User-input string. This string is alphanumeric and case sensitive, can contain special characters, and has a maximum of 100 characters.

Defaults

None

Command Modes

COM1 port configuration mode
Console port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **modem set-string user-input** command only in the default virtual device context (VDC).

You can configure the console and COM1 ports only from a session on the console port.

This command does not require a license.

Examples

This example shows how to configure the user-input initialization string for the modem connected to the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# modem set-string user-input ATE0Q1&D2&C1S0=3\015
```

This example shows how to configure the user-input initialization string for the modem connected to the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# modem set-string user-input ATE0Q1&D2&C1S0=3\015
```

This example shows how to revert to the default user-input initialization string for the modem connected to the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# no modem set-string
```

This example shows how to revert to the default user-input initialization string for the modem connected to the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no modem set-string
```

Related Commands

Command	Description
line com1	Enters COM1 port configuration mode.
line console	Enters console port configuration mode.
modem init-string	Downloads the user-input initialization string to a modem.
show line	Displays information about the COM1 and console port configuration.

move

To move a file from one directory to another, use the **move** command.

move [*filesystem***:**[*//module/*][*directory/*] | *directory/*]*source-filename*
{{*filesystem***:**[*//module/*][*directory/*] | *directory/*}[*destination-filename*] | *target-filename*}

Syntax Description

*filesystem***:**	(Optional) Name of a file system. The name is case sensitive.
//module/	(Optional) Identifier for a supervisor module. Valid values are **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**. The identifiers are case sensitive.
directory/	(Optional) Name of a directory. The name is case sensitive.
source-filename	Name of the file to move. The name is case sensitive.
destination-filename	(Optional) Name of the destination file. The name is alphanumeric, case sensitive, and has a maximum of 64 characters.
target-filename	(Optional) Name of the target file. The target-filename argument is alphanumeric, case sensitive, and has a maximum of 64 characters.

Defaults

The default name for the destination file is the same as the source filename.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can make a copy of a file by using the **copy** command.

Tip You can rename a file by moving it within the same directory.

This command does not require a license.

Examples

This example shows how to move a file to another directory:

```
switch# move file1 my_files:file2
```

This example shows how to move a file to another file system:

```
switch# move file1 slot0:
```

This example shows how to move a file to another supervisor module:

```
switch# move file1 bootflash://sup-remote/file1.bak
```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Makes a copy of a file.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

parity

To configure the parity for the COM1 port or console port, use the **parity** command. To revert to the default, use the **no** form of this command.

parity {**even** | **none** | **odd**}

no parity {**even** | **none** | **odd**}

Syntax Description

even	Specifies even parity.
none	Specifies no parity.
odd	Specifies odd parity.

Defaults

The **none** keyword is the default.

Command Modes

COM1 port configuration mode
Console port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **parity** command only in the default virtual device context (VDC).

You can configure the console and COM1 ports only from a session on the console port.

This command does not require a license.

Examples

This example shows how to configure the parity for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# parity even
```

This example shows how to configure the parity for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# parity even
```

This example shows how to revert to the default parity for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# no parity even
```

This example shows how to revert to the default parity for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no parity even
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

ping

To determine the network connectivity to another device using IPv4 addressing, use the **ping** command.

ping {*dest-ipv4-address* | *hostname*} [**count** {*number* | **unlimited**}] [**df-bit**] [**interval** *seconds*] [**packet-size** *bytes*] [**source** *src-ipv4-address*] [**timeout** *seconds*] [**vrf** *vrf-name*]

Syntax Description

dest-ipv4-address	IPv4 address of the destination device. The format is: ***A.B.C.D***.
hostname	Hostname of the destination device. The hostname is case sensitive.
count	(Optional) Specifies the number of transmissions to send.
number	Number of pings. The range is from 1 to 655350. The default is 5.
unlimited	Allows an unlimited number of pings.
df-bit	(Optional) Enables the do-not-fragment bit in the IPv4 header. By default, it is disabled.
interval *seconds*	(Optional) Specifies the interval in seconds between transmissions. The range is from 0 to 60. The default is 1 second.
packet-size *bytes*	(Optional) Specifies the packet size in bytes to transmit. The range is from 1 to 65468. The default is 56 bytes.
source *scr-ipv4-address*	(Optional) Specifies the source IPv4 address to use. The format is ***A.B.C.D***. The default is the IPv4 address for the management interface of the device.
timeout *seconds*	(Optional) Specifies the nonresponse timeout interval in seconds. The range is from 1 to 60. The default is 2 seconds.
vrf *vrf-name*	(Optional) Specifies the virtual routing and forwarding (VRF) name. The default is the default VRF.

Defaults

For the default values, see the “Syntax Description” section for this command.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

To determine the network connectivity to another device using IPv6 addressing, use the **ping6** command.

This command does not require a license.

Examples

This example shows how to determine connectivity to another device using IPv4 addressing:

```
switch# ping 172.28.231.246 vrf management
PING 172.28.231.246 (172.28.231.246): 56 data bytes
Request 0 timed out
64 bytes from 172.28.231.246: icmp_seq=1 ttl=63 time=0.799 ms
64 bytes from 172.28.231.246: icmp_seq=2 ttl=63 time=0.597 ms
64 bytes from 172.28.231.246: icmp_seq=3 ttl=63 time=0.711 ms
64 bytes from 172.28.231.246: icmp_seq=4 ttl=63 time=0.67 ms

--- 172.28.231.246 ping statistics ---
5 packets transmitted, 4 packets received, 20.00% packet loss
round-trip min/avg/max = 0.597/0.694/0.799 ms
```

Related Commands

Command	Description
ping6	Determines connectivity to another device using IPv6 addressing.

ping6

To determine the network connectivity to another device using IPv6 addressing, use the **ping6** command.

ping6 {*dest-ipv6-address* | *hostname*} [**count** {*number* | **unlimited**}] [**interface** *intf-id*] [**interval** *seconds*] [**packet-size** *bytes*] [**source** *ipv6-address*] [**timeout** *seconds*] [**vrf** *vrf-name*]

Syntax Description

dest-ipv6-address	IPv6 address of the destination device. The format is: *A.B.C.D*.
hostname	Hostname of the destination device. The hostname is case sensitive.
count	(Optional) Specifies the number of transmissions to send.
number	Number of pings. The range is from 1 to 655350. The default is 5.
unlimited	Allows an unlimited number of pings.
interface *intf-id*	(Optional) Specifies the interface to send the IPv6 packet. The valid interface types are Ethernet, loopback, port channel, and VLAN.
interval *seconds*	(Optional) Specifies the interval in seconds between transmissions. The range is from 0 to 60. The default is 1 second.
packet-size *bytes*	(Optional) Specifies the packet size in bytes to transmit. The range is from 1 to 65468.
source *ipv6-address*	(Optional) Specifies the source IPv6 address to use. The format is *A*:*B*::*C*:*D*. The default is the IPv6 address for the management interface of the device.
timeout *seconds*	(Optional) Specifies the nonresponse timeout interval in seconds. The range is from 1 to 60. The default is 2 seconds.
vrf *vrf-name*	(Optional) Specifies the virtual routing and forwarding (VRF) name. The default is the default VRF.

Defaults

For the default values, see the "Syntax Description" section for this command.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

To determine the network connectivity to another device using IPv4 addressing, use the **ping** command.

This command does not require a license.

Examples

This example shows how to determine connectivity to another device using IPv6 addressing:

```
switch# ping6 2001:0DB8::200C:417A vrf management
```

Related Commands

Command	Description
ping	Determines connectivity to another device using IPv4 addressing.

pong

To start the pong service on the current virtual device context (VDC), use the **pong** command.

pong {**source** *mac* **destination** *mac*} **vlan** *vlan-id* **count** *numbers* **cos** | **details** | **inject** | **interface** *interface-id* | **interval** *seconds* | **timeout** *seconds*]

Syntax Description

source	Specifies the source ID.
mac	MAC address. The format can be: E.E.E, EE-EE-EE-EE-EE-EE, EE:EE:EE:EE:EE:EE, or EEEE.EEEE.EEEE.
destination	Specifies the destination ID.
vlan	Specifies the VLAN over which the packets go through.
vlan-id	VLAN ID. The range is from 1 to 4094.
count *numbers*	Specifies the number number of packets to send. The range is from 0 to 2147483647.
cos	802.1Q class of service value. The range is from 0 to 7.
details	(Optional) Specifies details of all timestamps.
inject	(Optional) Specifies the injection of packets through an interface.
interface *interface-id*	(Optional) Specifies the interface to send Pong messages. The valid interface types are Ethernet.
interval *seconds*	(Optional) Specifies the interval for sending the Pong messages. The range is from 1 to 5.
timeout *seconds*	(Optional) Specifies the timeout for receiving Pong replies. The range is from 2 to 10.

Defaults

None

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
6.1(1)	Changed the command outputs.
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows the Pong service between FabricPath switch-ids:

```
switch# configure terminal
switch(config)# pong destination-swid 2811 destination-mac 18ef.63e9.ee43 vlan 2

Packet No. 1

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4928
2    18-ef-63-e9-ee-43 (2811)   0      530568408*
#3   18-ef-63-e9-ee-42 ( 456)   0      4872
Round trip time: 0sec 15624 nsec

Packet No. 2

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4896
2    18-ef-63-e9-ee-43 (2811)   0      536461272*
#3   18-ef-63-e9-ee-42 ( 456)   0      4808
Round trip time: 0sec 15544 nsec

Packet No. 3

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4848
2    18-ef-63-e9-ee-43 (2811)   0      534087176*
#3   18-ef-63-e9-ee-42 ( 456)   0      4888
Round trip time: 0sec 15544 nsec

Packet No. 4

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4880
2    18-ef-63-e9-ee-43 (2811)   0      541281528*
#3   18-ef-63-e9-ee-42 ( 456)   0      4824
Round trip time: 0sec 15544 nsec
```

```
Packet No. 5

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4880
2    18-ef-63-e9-ee-43 (2811)   0      543347528*
#3   18-ef-63-e9-ee-42 ( 456)   0      4856
Round trip time: 0sec 15576 nsec

Summary:
        Packets sent on vlan  : 2
        Total packets sent    : 5
        Total packets received: 5
        Maximum round trip time in ns: 15624
        Minimum round trip time in ns: 15544
        Average round trip time in ns: 15566
```

This example shows the Pong service using static MAC for injection:

```
switch(config)# configure terminal
switch(config)# pong source 1.2.3 destination 18ef.63e9.ee43 interface ethernet 1/10
inject

Packet No. 1

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-41   (NA)   0      4304
2    18-ef-63-e9-ee-42   (NA)   0      4288
3    18-ef-63-e9-ee-43   (NA)   0      540653528*
#4   18-ef-63-e9-ee-42   (NA)   0      4760
#5   18-ef-63-e9-ee-41   (NA)   0      4816
Round trip time: 0sec 23984 nsec

Packet No. 2

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-41   (NA)   0      4328
2    18-ef-63-e9-ee-42   (NA)   0      4800
3    18-ef-63-e9-ee-43   (NA)   0      543289656*
#4   18-ef-63-e9-ee-42   (NA)   0      4776
#5   18-ef-63-e9-ee-41   (NA)   0      4816
Round trip time: 0sec 24552 nsec

Packet No. 3

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-41   (NA)   0      4304
2    18-ef-63-e9-ee-42   (NA)   0      4816
3    18-ef-63-e9-ee-43   (NA)   0      532286984*
#4   18-ef-63-e9-ee-42   (NA)   0      4760
#5   18-ef-63-e9-ee-41   (NA)   0      4816
Round trip time: 0sec 24512 nsec

Packet No. 4

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
```

```
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------- --------------------------
1    18-ef-63-e9-ee-41   (NA)   0      4240
2    18-ef-63-e9-ee-42   (NA)   0      4816
3    18-ef-63-e9-ee-43   (NA)   0      532730344*
#4   18-ef-63-e9-ee-42   (NA)   0      4792
#5   18-ef-63-e9-ee-41   (NA)   0      4832
Round trip time: 0sec 24480 nsec

Packet No. 5

Legend:
               (*)  - software delay(not hardware latency)
               (#)  - reverse path
               (NA) - not available
--- ------------------------- --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------- --------------------------
1    18-ef-63-e9-ee-41   (NA)   0      4360
2    18-ef-63-e9-ee-42   (NA)   0      4832
3    18-ef-63-e9-ee-43   (NA)   0      542201864*
#4   18-ef-63-e9-ee-42   (NA)   0      4760
#5   18-ef-63-e9-ee-41   (NA)   0      4784
Round trip time: 0sec 24568 nsec

Summary:
        Packets sent on vlan  : 1
        Total packets sent    : 5
        Total packets received: 5
        Maximum round trip time in ns: 24568
        Minimum round trip time in ns: 23984
        Average round trip time in ns: 24419
```

This example shows the CE Pong with source MAC specified:

```
switch(config-if)# pong source 18ef.63e9.ee41 destination 18ef.63e9.ee43

Packet No. 1

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4256
2    18-ef-63-e9-ee-43   (NA)   0      539622256*
#3   18-ef-63-e9-ee-42 ( 456)   0      4264
Round trip time: 0sec 14360 nsec

Packet No. 2

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4832
2    18-ef-63-e9-ee-43   (NA)   0      533784720*
#3   18-ef-63-e9-ee-42 ( 456)   0      4808
Round trip time: 0sec 15448 nsec

Packet No. 3

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4768
2    18-ef-63-e9-ee-43   (NA)   0      538628976*
#3   18-ef-63-e9-ee-42 ( 456)   0      4808
Round trip time: 0sec 15384 nsec

Packet No. 4

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4800
2    18-ef-63-e9-ee-43   (NA)   0      533690096*
#3   18-ef-63-e9-ee-42 ( 456)   0      4792
Round trip time: 0sec 15416 nsec
```

```
Packet No. 5

Legend:
                (*)  - software delay(not hardware latency)
                (#)  - reverse path
                (NA) - not available
--- ------------------------ --------------------------
Hop   System-mac  (switch-id) Switching time
                              (sec,     nsec)
--- ------------------------ --------------------------
1    18-ef-63-e9-ee-42 ( 456)   0      4832
2    18-ef-63-e9-ee-43   (NA)   0      544597072*
#3   18-ef-63-e9-ee-42 ( 456)   0      4792
Round trip time: 0sec 15448 nsec

Summary:
        Packets sent on vlan  : 1
        Total packets sent    : 5
        Total packets received: 5
        Maximum round trip time in ns: 15448
        Minimum round trip time in ns: 14360
        Average round trip time in ns: 15211
```

Related Commands

Command	Description
feature pong	Enables the Pong feature.
feature ptp	Enables the Precision Time Protocol (PTP) feature. This command is documented in the *Cisco Nexus 7000 Series NX-OS System Management Command Reference*.

pop

To restore a saved command mode context, use the **pop** command.

pop [*name*]

Syntax Description

name	(Optional) Name for the command mode context.

Defaults

The recent saved mode context

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.1(2)	This command was introduced.

Usage Guidelines

You can save a command mode context using the **push** command.

This command does not require a license.

Examples

This example shows how to restore an unnamed command mode context:

```
switch# configure terminal
switch(config)# role name test
switch(config-role)# push
switch(config-role)# end
switch# pop
switch(config-role)#
```

This example shows how to restore a named command mode context:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# push com1
switch(config-com1)# end
switch# pop com1
switch(config-com1)#
```

Related Commands

Command	Description
push	Saves a command mode context.

power redundancy-mode

To configure the power supply redundancy mode, use the **power redundancy-mode** command. To revert to the default, use the **no** form of this command.

power redundancy-mode {**combined** | **insrc-redundant** | **ps-redundant** | **redundant**}

no power redundancy-mode {**combined** | **insrc-redundant** | **ps-redundant** | **redundant**}

Syntax Description

combined	Specifies the combined power supply mode.
insrc-redundant	Specifies the input source redundancy mode.
ps-redundant	Specifies the power supply redundancy mode.
redundant	Specifies the full redundancy mode.

Defaults

ps-redundant

Command Modes

Global configuration mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **power redundancy-mode** command only in the default virtual device context (VDC).

You can configure the power supplies with the following modes:

- Combined mode—This is the simplest power mode, but it does not provide power redundancy. The available power for this mode is the total power capacity of all power supplies.
- Power supply redundancy mode—This mode provides an extra power supply in case an active power supply goes down. With this mode, the power supply that can supply the most power operates in the standby mode. The other one or two power supplies are active. The available power is the amount of power provided by the active power supply units.
- Input source redundancy mode—This mode uses two electrical grids, each one powering a half module within each power supply. If one power grid goes down, each power supply continues to draw power through its other half module. The available power is the amount of power by the lesser of the two grids through the power supplies.
- Full redundancy mode—This mode combines power supply redundancy and input source redundancy, which means that the chassis has an extra power supply and each half of each power supply is connected to one electrical grid while the other half of each power supply is connected to the other electrical grid. The available power is the lesser of the available power for the power supply mode and input source mode.

This command does not require a license.

Examples

This example shows how to configure the full power supply redundancy mode:

```
switch# configure terminal
switch(config)# power redundancy-mode redundant
```

This example shows how to disable the full power supply redundancy mode:

```
switch# configure terminal
switch(config)# no power redundancy-mode redundant
```

Related Commands

Command	Description
show environment	Displays information about the device hardware environment.

purge module running-config

To remove the configuration for a missing module from the running configuration, use the **purge module running-config** command.

purge module *slot* **running-config**

Syntax Description

slot	Slot in the chassis. The range is from 1 to 18.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **purge module running-config** command only in the default virtual device context (VDC).

Use the **show hardware** command to verify which modules are missing.

This command does not require a license.

Examples

This example shows how to remove the configuration for a missing module from the running configuration:

```
switch# purge module 1 running-config
```

Related Commands

Command	Description
show running-config	Displays the running configuration.

push

To save a command mode context, use the **push** command.

push [*name*]

Syntax Description

name	(Optional) Name for the command mode context.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.1(2)	This command was introduced.

Usage Guidelines

You can save only one command mode context. Use the **pop** command to restore a saved command mode context.

This command does not require a license.

Examples

This example shows how to save an unnamed command mode context:

```
switch# configure terminal
switch(config)# role name test
switch(config-role)# push
```

This example shows how to save a named command mode context:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# push com1
```

Related Commands

Command	Description
pop	Restores a command mode context.

python

To invoke the Python Interpreter in interactive mode from the CLI, use the **python** command.

python

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
6.2(2)	This command was introduced.

Usage Guidelines

To run CLI commands in Python, you must import the **cisco** module. The **cisco** module contains the code that integrates with the command-line interface (CLI).

The functions contained in the **cisco** module that enable the CLI commands are imported automatically when you use the **python** command to invoke the Python interactive mode (or when you use the **source** command when invoking the Python noninteractive mode).

The Python programming language has three APIs that can execute CLI commands. See the *Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide* for a list of CLI commands.

Examples

This example shows how to invoke Python from the CLI:

Note The Python interpreter is designated with the ">>>" or "..." prompt.

```
switch# show clock
23:54:55.872 UTC Wed May 16 2012
switch # python                       !-- Enter Python interpreter
switch >>> cli ("conf term ; interface loopback 1")
switch(config-if)# >>> cli("ip address 1.1.1.1/24")
switch(config-if)# >>> cli("exit")    !-- Exit the CLI interface mode
switch(config)# >>> cli("exit")
switch# >>> i=0
switch# >>> while i<8:
switch# >>> i=i+1                     !-- Composite command; prompt indicates more input
switch# ...cmd = "show module %i" % i
switch# ...r=clid(cmd)
switch# ...if "TABLE_modinfo/model" in r.keys():
switch# ...    if r ["TABLE_modinfo/model"] == "Nurburgring":
switch# ...        print "got a racer in slot %d" % i
switch# ...                            !-- Empty input indicates end of loop
got a racer in slot 3
switch# >>> exit                       !-- Exit Python interpreter
```

Python is forked from the CLI shell, which means the following::

- No state is preserved between invocations of the Python interpreter.
- The CLI mode is lost when exiting the Python interpreter.

This example shows the nonpersistence of the Python interpreter:

```
switch# python         !-- Invoke Python interpreter
switch# >>> i = 2
switch# >>> print "var i = %d" % i
var i = 2
switch# >>> cli("configure terminal")
switch(config)# >>> blabla
switch(config)# >>> exit          !-- Exit Python interpreter
switch#                           !-- CLI still in exec mode (conf t is lost)
switch# python                    !-- Invoke new Python interpreter
switch# >>> print "var i = %d" % i !-- Previous Python interpreter and variables are lost
Error: variable 'i' undefined.
switch# >>> exit
switch# conf t ; inter lo 1
switch(config-if)# python         !-- Invoke new Python interpreter
switch(config-if)# >>>            !-- Inherits the CLI mode (forked from CLI)
```

Related Commands

Command	Description
source	Runs a tcl/python script in noninteractive mode

reload

To reload the entire Cisco NX-OS device, use the **reload** command.

reload [**soft**]

Syntax Description

soft	(Optional) Specifies to not reload the Connectivity Management Processor (CMP) on the active supervisor module.

Defaults

Reloads the entire device.

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **reload** command only in the default virtual device context (VDC).

The **reload** command uses the kickstart and system images referenced in the boot variables to reboot the device. Use the **show boot** command to verify the contents of the kickstart and system boot variables. To set the boot variables to reference the correct images, use the **boot kickstart** and **boot system** commands.

If the boot variables do not reference images on the device, the device comes up at the loader> prompt after you enter the **reload** command. For information about recovering from the loader> prompt, see the *Cisco Nexus 7000 Series NX-OS Troubleshooting Guide*.

Caution The **reload** command disrupts traffic on the device.

Note The **reload** command does not save the running configuration. Use the **copy running-config startup-config** command to save the current configuration on the device.

For information on upgrading and downgrading images on your Cisco NX-OS device, see the *Cisco Nexus 7000 Series NX-OS Software Upgrade and Downgrade Guide*.

This command does not require a license.

Examples

This example shows how to reload the Cisco NX-OS device:

```
switch# copy running-config startup-config
[########################################] 100%
switch# reload
This command will reboot the system. (y/n)?  [n] y
```

Related Commands

Command	Description
boot kickstart	Configures the kickstart boot variable.
boot system	Configures the system boot variable.
copy running-config startup-config	Copies the current running configuration to the startup configuration.
install all	Installs the software on the physical device.
reload ascii	Copies an ASCII version of the configuration to the startup configuration when reloading the entire CISCO NX-OS device.
reload cmp module	Reloads the Connectivity Management Processor (CMP).
reload module	Reloads a module in the device.
reload vdc	Reloads the virtual device context (VDC).
show boot	Displays boot variable configuration information.
show version	Displays information about the software version.

reload ascii

To copy an ASCII version of the configuration to the startup configuration when reloading the entire Cisco NX-OS device, use the **reload ascii** command.

reload ascii [**vdc-all**]

Syntax Description

vdc-all	(Optional) Performs a copy for all virtual device contexts (VDCs).

Defaults

Reloads the entire device, including any unsaved configurations and binary configuration in the VDC.

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
6.2.(2)	This command was introduced.

Usage Guidelines

The **reload ascii** command erases the binary configuration in the VDC and reboots the system with an ASCII configuration.

Caution The **reload ascii** command disrupts traffic on the device.

Note The **reload ascii** command does not save the running configuration. Use the **copy running-config startup-config** command to save the current configuration on the device.

This command does not require a license.

Examples

This example shows how to copy an ASCII version of the configuration to the startup configuration when reloading the entire Cisco NX-OS device :

```
switch# copy running-config startup-config
[########################################] 100%
Copy complete.
switch# reload ascii
!!!WARNING! there is unsaved configuration in VDC!!!
!!!WARNING! This command will erase binary configuration
in this VDC and reboot the system with ascii configuration.
Do you wish to proceed anyway? (y/n)  [n]
```

Related Commands

Command	Description
copy running-config startup-config	Copies the current running configuration to the startup configuration.
reload	Reloads the entire Cisco NX-OS device.
reload cmp module	Reloads the Connectivity Management Processor (CMP).
reload module	Reloads a module in the device.
reload vdc	Reloads the current virtual device context (VDC).

reload cmp module

To reload the Connectivity Management Processor (CMP), use the **reload cmp module** command.

reload cmp module *slot*

Syntax Description		
	slot	Chassis slot number. The range is from 9 to 10.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin

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

Usage Guidelines You can use the **reload cmp module** command only in the default virtual device context (VDC).

Use the **show hardware** command to determine the location of the CMPs on your device.

This command does not require a license.

Examples This example shows how to reload the CMP on the supervisor module on a slot:

```
switch# reload cmp module 5
```

Related Commands

Command	Description
show version	Displays information about the software version.
reload	Reloads the entire Cisco NX-OS device.
reload ascii	Copies an ASCII version of the configuration to the startup configuration when reloading the entire Cisco NX-OS device.
reload module	Reloads a module in the device.
reload vdc	Reloads a nondefault virtual device context (VDC).

reload module

To reload a module in the device, use the **reload module** command.

reload module *slot* [**force-dnld**]

Syntax Description

slot	Chassis slot number. The range is from 1 to 18.
force-dnld	(Optional) Forces the download of software to the module.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **reload module** command only in the default virtual device context (VDC).

Use the **show hardware** command to display information about the hardware on your device.

This command does not require a license.

Examples

This example shows how to reload a module:

```
switch# reload module 2
```

Related Commands

Command	Description
show version	Displays information about the software version.
reload	Reloads the entire Cisco NX-OS device.
reload ascii	Copies an ASCII version of the configuration to the startup configuration when reloading the entire Cisco NX-OS device.
reload cmp module	Reloads the Connectivity Management Processor (CMP).
reload vdc	Reloads a a nondefault virtual device context (VDC).

reload vdc

To reload a nondefault virtual device context (VDC), use the **reload vdc** command.

reload vdc *number*

Syntax Description

number	VDC number.

Defaults

None

Command Modes

Any command mode in a nondefault VDC

SupportedUserRoles

network-admin

vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

You can use the **reload vdc** command only in the default virtual device context (VDC). Use the **reload vdc ?** command to view all VDCs.

Caution Reloading a VDC disrupts all traffic on the VDC.

Note Use the **reload** command to reload the default VDC, which also reloads all nondefault VDCs.

This command requires the Advanced Services license.

Examples

This example shows how to restard a VDC:

```
switch# reload vdc
```

Related Commands

Command	Description
reload	Reloads the Cisco NX-OS device.
reload ascii	Copies an ASCII version of the configuration to the startup configuration when reloading the entire Cisco NX-OS device.

reload cmp module	Reloads the Connectivity Management Processor (CMP).
reload module	Reloads a module in the Cisco NX-OS device .

rmdir

To remove a directory, use the **rmdir** command.

rmdir [*filesystem*:[*//module/*]]*directory*

Syntax Description

filesystem:	(Optional) Name of a file system. The name is case sensitive.
//module/	(Optional) Identifier for a supervisor module. Valid values are **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**. The identifiers are case sensitive.
directory	Name of a directory. The name is case sensitive.

Defaults

Removes the directory from the current working directory.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to remove a directory:

```
switch# rmdir my_files
```

Related Commands

Command	Description
cd	Changes the current working directory.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

run-script

To run a command script file at the command-line interface (CLI), use the **run-script** command.

run-script [*filesystem*:[*//module/*]][*directory/*]*filename*

Syntax Description

filesystem:	(Optional) Name of a file system. The name is case sensitive.
//module/	(Optional) Identifier for a supervisor module. Valid values are **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**. The identifiers are case sensitive.
directory/	(Optional) Name of a directory. The name is case sensitive.
filename	Name of the command file. The name is case sensitive.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You must create the command file on a remote device and download it to the Cisco NX-OS device by using the **copy** command.

This command does not require a license.

Examples

This example shows how to run a command script file:

```
switch# run-script script-file
```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Copies files.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

send

To send a message to the active user sessions, use the **send** command.

send [**session** *line*] *text*

Syntax Description

session *line*	(Optional) Specifies a user session.
text	Text string. The text string can be up to 80 alphanumeric characters and is case sensitive.

Defaults

Sends a message to all active user sessions.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **show users** command to display information about the active user sessions.

The **send** command does not require a license.

Examples

This example shows how to send a message to all active user sessions on the device:

```
switch# send The system will reload in 15 minutes!
The system will reload in 15 minutes!
```

This example shows how to send a message to a specific user session:

```
switch# send session pts/39 You must log off the device.
```

Related Commands

Command	Description
show users	Displays the active user session on the device.

setup

To enter the basic device setup dialog, use the **setup** command.

setup

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines When you use the **setup** command to change your device configuration, the setup utility uses the factory-default values, not the values that you have configured, when you accept the default values in the dialog.

You can exit the setup utility dialog at any time by pressing **Ctrl+C**.

The **setup** command does not require a license.

Examples This example shows how to enter the basic device setup script:

```
switch# setup


         ---- Basic System Configuration Dialog VDC: 1 ----

This setup utility will guide you through the basic configuration of
the system. Setup configures only enough connectivity for management
of the system.

*Note: setup is mainly used for configuring the system initially,
when no configuration is present. So setup always assumes system
defaults and not the current system configuration values.

Press Enter at anytime to skip a dialog. Use ctrl-c at anytime
to skip the remaining dialogs.

Would you like to enter the basic configuration dialog (yes/no):
```

Related Commands

Command	Description
show running-config	Displays the running configuration.

session-limit

To configure the maximum number of the concurrent virtual terminal sessions on a device, use the **session-limit** command. To revert to the default, use the **no** form of this command.

session-limit *sessions*

no session-limit *sessions*

Syntax Description

sessions	Maximum number of sessions. The range is from 1 to 64.

Defaults

32 sessions

Command Modes

Line configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure the maximum number of concurrent virtual terminal sessions:

```
switch# configure terminal
switch(config)# line vty
switch(config-line)# session-limit 48
```

This example shows how to revert to the default maximum number of concurrent virtual terminal sessions:

```
switch# configure terminal
switch(config)# line vty
switch(config-line)# no session-limit 48
```

Related Commands

Command	Description
show running-config	Displays the running configuration.

show banner motd

To display the message-of-the-day (MOTD) banner, use the **show banner motd** command.

show banner motd

Syntax Description This command has no arguments or keywords.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines This command does not require a license.

Examples This example shows how to display the MOTD banner:

```
switch# show banner motd
Unauthorize access prohibited!
```

Related Commands

Command	Description
banner motd	Configures the MOTD banner.

show boot

To display the boot variable configuration, use the **show boot** command.

show boot [**auto-copy** | **module** [*slot*] | **sup-1** | **sup-2** | **variables**]

Syntax Description

auto-copy	(Optional) Displays the boot auto-copy status.
module	(Optional) Displays the boot variable configured for an I/O module.
slot	(Optional) Slot number in the chassis. The range is from 1 to 18.
sup-1	(Optional) Displays the boot variables configured for supervisor module 1 (sup-1).
sup-2	(Optional) Displays the boot variables configured for supervisor module 2 (sup-2).
variables	(Optional) Displays a list of boot variables.

Defaults

Displays all configured boot variables.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Sup-1 refers to the top supervisor module in a chassis with two supervisor modules, and sup-2 refers to the bottom supervisor module. For example, in the Cisco NX-OS 7010 device, sup-1 is in slot 5, and sup-2 is in slot 6.

This command does not require a license.

Examples

This example shows how to display all configured boot variables:

```
switch# show boot
sup-1
kickstart variable = bootflash:/n7000-s1-kickstart.4.0.2.bin
system variable = bootflash:/n7000-s1-dk9.4.0.2.bin
sup-2
kickstart variable = bootflash:/n7000-s1-kickstart.4.0.2.bin
system variable = bootflash:/n7000-s1-dk9.4.0.2.bin
No module boot variable set
```

This example shows how to display the boot variables for supervisor module 1:

```
switch# show boot sup-1
sup-1
kickstart variable = bootflash:/n7000-s1-kickstart.4.0.2.bin
system variable = bootflash:/n7000-s1-dk9.4.0.2.bin
```

This example shows how to display the list of boot variable names (see Table 5 for field descriptions):

```
switch# show boot variables
    ssi
    system
    asm-sfn
    kickstart
```

Table 5 show boot variables Field Descriptions

Field	Description
ssi	Not supported.
system	Name of the variable for the system image filename.
asm-sfn	Not supported.
kickstart	Name of the variable for the kickstart image filename.

Related Commands

Command	Description
boot auto-copy	Enables automatic copy of boot images to the standby supervisor module.
boot kickstart	Configures the boot variable for the kickstart image.
boot system	Configures the boot variable for the system image.

show cli alias

To display the command alias configuration, use the **show cli alias** command.

show cli alias [**name** *alias-name*]

Syntax Description		
	name *alias-name*	(Optional) Specifies the name of a command alias. The alias name is not case sensitive and it can be up to 30 characters.

Defaults Displays all configured command alias variables.

Command Modes Any command mode

SupportedUserRoles
network-admin
vdc-admin
network-operator
vdc-operator

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

Usage Guidelines This command does not require a license.

Examples This example shows how to display all configured command aliases:

```
switch# show cli alias
CLI alias commands
==================
ethint     :interface ethernet
shintbr    :show interface br
shintupbr  :shintbr | include up | include ethernet
alias      :show cli alias
crun       :copy running-config startup-config
```

This example shows how to display a specific command alias:

```
switch# show cli alias name ethint
ethint :interface ethernet
```

Related Commands	Command	Description
	cli alias name	Configures command aliases.

show cli history

To display the command history, use the **show cli history** command.

show cli history [*lines*] [**unformatted**]

Syntax Description		
	lines	(Optional) Number of lines at the end of the command history to display.
	unformatted	(Optional) Displays the commands without line numbers or time stamps.

Defaults Displays the entire formatted history.

Command Modes Any command mode

SupportedUserRoles
network-admin
vdc-admin
network-operator
vdc-operator

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

Usage Guidelines This command does not require a license.

Examples This example shows how to display all of the command history:

```
switch# show cli history
 0  22:59:13   show boot
 1  23:00:05   show boot sup-1
 2  23:01:23   show boot variables
 3  23:20:28   config t
 4  23:22:16   end
 5  23:22:25   show cli alias
 6  00:00:10   show cli alias name ethint
...
```

This example shows how to display the last 10 lines of the command history:

```
switch# show cli history 10
42  00:42:54 ip route 0.0.0.0/0 172.28.230.1
43  00:42:54 interface mgmt0
44  00:42:54 ip address 172.28.231.193/23
45  00:42:54 no shutdown
46  00:42:54 aaa group server radius aaa-private-sg
47  00:42:54 use-vrf management
48  00:42:54 telnet server enable
49  00:42:54 logging server 172.28.254.254
50  00:42:54 power redundancy-mode combined
51  00:43:28 show cli history 10
```

This example shows how to display unformatted command history:

```
switch# show cli history unformatted
config t
vrf context management
ip route 0.0.0.0/0 172.28.230.1
interface mgmt0
ip address 172.28.231.193/23
no shutdown
aaa group server radius aaa-private-sg
use-vrf management
telnet server enable
logging server 172.28.254.254
power redundancy-mode combined
show cli history unformated
```

show cli list

To list the Cisco NX-OS commands available in a command mode, use the **show cli list** command.

show cli list [*combinations*] [*component-name*] [**recurse**]

Syntax Description

combinations	(Optional) Number of combinations to show per command. The range is from 0 to 2147483647 combinations. The default is 100.
component-name	(Optional) Name of the component. Currently components are restricted to routing commands.
recurse	(Optional) Displays the children commands within a command mode.

Defaults

Displays the commands for the command mode in a single-line format.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(2)	This command was introduced.

Usage Guidelines

To exit a long listing generated by this command, press **Ctrl-C**.

This command does not require a license.

Examples

This example shows how to display all commands available in EXEC mode:

```
switch# show cli list
MODE exec
show system internal modlock-info
show system internal usd errors
show system internal usd isr
show system internal usd mts
show system internal usd timeslice
show system internal usd wd
show system internal aaa event-history errors
show system internal aaa event-history msgs
...
^C
```

This example shows how to display all commands related to the Address Resolution Protocol (ARP) available in configuration command mode:

```
switch(config)# show cli list arp
MODE configure
no ip arp timeout
no logging level arp <uint:0-7>
no ip arp event-history packet size <small|medium|large|disabled>
no ip arp event-history event size <small|medium|large|disabled>
no ip arp event-history ha size <small|medium|large|disabled>
no ip arp event-history errors size <small|medium|large|disabled>
no ip arp event-history lcache size <small|medium|large|disabled>
no ip arp event-history lcache-errors size <small|medium|large|disabled>
no ip arp event-history client-event size <small|medium|large|disabled>
no ip arp event-history client-errors size <small|medium|large|disabled>
no ip arp event-history snmp size <small|medium|large|disabled>
no ip arp event-history cli size <small|medium|large|disabled>
logging level arp <uint:0-7>
ip arp event-history packet size <small|medium|large|disabled>
ip arp event-history event size <small|medium|large|disabled>
ip arp event-history ha size <small|medium|large|disabled>
ip arp event-history errors size <small|medium|large|disabled>
ip arp event-history lcache size <small|medium|large|disabled>
ip arp event-history lcache-errors size <small|medium|large|disabled>
ip arp event-history client-event size <small|medium|large|disabled>
ip arp event-history client-errors size <small|medium|large|disabled>
ip arp event-history snmp size <small|medium|large|disabled>
ip arp event-history cli size <small|medium|large|disabled>
ip arp timeout <int:60-28800>
```

This example shows how to display commands related to Open Shortest Path First (OSPF) available in the loopback interface command mode:

```
switch(config)# interface loopback 0
switch(config-if)# show cli list ospf
MODE if-loopback
no ip ospf network point-to-point
no ip ospf network
```

Related Commands

Command	Description
show cli syntax	Displays the Cisco NX-OS command syntax available in a command mode.

show cli syntax

To display the Cisco NX-OS command syntax available in a command mode, use the **show cli syntax** command.

show cli syntax [*component-name*] [**long**] [**mode** *mode-name*] [**recurse**]

Syntax Description

component-name	(Optional) Name of the component.
long	(Optional) Displays the syntax in a tree format with more than one line per command.
mode *mode-name*	(Optional) Displays the command syntax for only the specified command mode.
recurse	(Optional) Displays the syntax of the commands within a command mode for the children of the current mode.

Defaults

Displays the command syntax for the command mode in a single-line format.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.2(1)	Added the **mode** keyword.
4.0(2)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the command syntax for commands available in the role configuration command mode in the default format:

```
switch(config-role)# show cli syntax
MODE role
(0) description <line> | no description
(1) description <line> | no description
(2) rule <number> { <action> } { { <permission> [ <featuretype> <name> ] } | { c
ommand <cmd_line> } } | no rule <number>
(3) rule <number> { <action> } { { <permission> [ <featuretype> <name> ] } | { c
ommand <cmd_line> } } | no rule <number>
(4)  [ no ] vlan policy deny
(5)  [ no ] interface policy deny
(6)  [ no ] vrf policy deny
```

This example shows how to display the command syntax for commands available in the role configuration command mode in long format:

```
switch(config-role)# show cli syntax long
MODE role
***(0) description <line>
       | no description
***(1) description <line>
       | no description
***(2) rule <number> { <action> }
                     { { <permission> [ <featuretype> <name> ]}
                     | { command <cmd_line> }}
       | no rule <number>
***(3) rule <number> { <action> }
                     { { <permission> [ <featuretype> <name> ]}
                     | { command <cmd_line> }}
       | no rule <number>
***(4) [no] vlan policy deny
***(5) [no] interface policy deny
***(6) [no] vrf policy deny
```

This example shows how to display the command syntax for commands and subcommands available in the role configuration command mode in the default format:

```
switch(config-role)# show cli syntax long recurse
MODE role
***(0) description <line>
       | no description
***(1) description <line>
       | no description
***(2) rule <number> { <action> }
                     { { <permission> [ <featuretype> <name> ]}
                     | { command <cmd_line> }}
       | no rule <number>
***(3) rule <number> { <action> }
                     { { <permission> [ <featuretype> <name> ]}
                     | { command <cmd_line> }}
       | no rule <number>
***(4) [no] vlan policy deny
***(5) [no] interface policy deny
***(6) [no] vrf policy deny
MODE vlan
***(7) [no] permit vlan <vlan-mrange>
MODE interface
***(8) [no] permit interface <if0>
MODE vrf
***(9) [no] permit vrf <vrf-name>
```

show cli variables

To display the configuration of the CLI variables, use the **show cli variables** command.

show cli variables

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the CLI variables:

```
switch# show cli variables
VSH Variable List
-----------------
TIMESTAMP="2008-06-13-01.14.09"
testinterface="ethernet 2/3"
```

Related Commands

Command	Description
cli var name	Configures CLI variables.

show clock

To display the clock configuration, use the **show clock** command.

show clock [**detail**]

Syntax Description		
	detail	(Optional) Displays the summer-time (daylight saving time) offset configuration.

Defaults

Displays all configured command alias variables.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the clock setting:

```
switch# show clock
Fri Jun 13 02:19:20 PDT 2008
```

This example shows how to display the clock setting and the summer-time (daylight saving time) configuration:

```
switch# show clock detail
Fri Jun 13 02:19:02 PDT 2008
summer-time configuration:
--------------------------
timezone name: PDT
starts       : 1 Sunday March at 02:00 hours
Ends         : 1 Sunday November at 02:00 hours
Minute offset: 60
```

Related Commands

Command	Description
clock set	Sets the clock time.
clock summer-time	Configures the summer-time (daylight saving time) offset.

show copyright

To display the Cisco NX-OS software copyright information, use the **show copyright** command.

show copyright

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the Cisco NX-OS copyright information:

```
switch# show copyright
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2008, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
```

show feature-set

To display the status of a feature set, use the **show feature-set** command.

show feature-set

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the status of a feature set:

```
switch# show feature-set
Feature Set Name      ID        State
--------------------  --------  --------
fcoe                  1         disabled
l2mp                  2         enabled
fex                   3         disabled
switch#
```

Related Commands

Command	Description
show install all	Displays information related to the operation of the **install all** command.

show file

To display the contents of a file on the local memory, use the **show file** command.

show file [*filesystem***:**][*//directory/*]*filename*

Syntax Description

*filesystem***:**	(Optional) Name of a file system. Valid values are **bootflash**, **debug**, **logflash**, **slot0**, **usb1**, **usb2**,or **volatile**.
//directory/	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file. The filename is case sensitive.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the contents of a file:

```
switch# show file scriptfile
configure terminal
interface $(testinterface)
no shutdown
end
show interface $(testinterface)
```

Related Commands

Command	Description
cd	Changes the current working directory.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

show hostname

To display the hostname for the device, use the **show hostname** command.

show hostname

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The **show switchname** command also displays the device hostname.

This command does not require a license.

Examples

This example shows how to display the hostname for the device:

```
switch# show hostname
```

Related Commands

Command	Description
hostname	Configures the hostname for the device.
show switchname	Displays the hostname.

show incompatibility system

To display the configuration incompatibilities between the running system image and an earlier system image prior to downgrading the Cisco NX-OS software, use the **show incompatibility system** command.

show incompatibility system {**bootflash: | slot0: | volatile:**}*filename*

Syntax Description

bootflash:	Specifies the internal Flash memory.
slot0:	Specifies the external Flash memory.
volatile:	Specifies the volatile memory on the device.
filename	System image filename to compare with the loaded software image.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **show incompatibility system** command only in the default virtual device context (VDC).

This command does not require a license.

Examples

This example shows how to display the configuration incompatibilities:

```
switch# show incompatibility system bootflash:old_image.bin
The following configurations on active are incompatible with  the system image
1) Service : eth_port_channel , Capability : CAP_FEATURE_AUTO_CREATED_PORT_CHANNEL
Description : active mode port channels, auto create enabled ports or auto created
port-channels are present
Capability requirement : STRICT
Disable command : 1.Convert Active mode port channels to On mode port channels (no channel
mode active).
2.Disable autocreate on interfaces (no channel-group auto).
3.Convert autocreated port channels to be persistent (port-channel 1 persistent).
```

show install all

To display information related to the operation of the **install all** command, use the **show install all** command.

show install all {**failed-standby** | **failure-reason** | **impact** [**kickstart** | **system**] | **status**}

Syntax Description

failed-standby	Displays the software installation failure log on the standby supervisor module.
failure-reason	Displays the software installation failure reason.
impact	Displays the impact of installing the images referred to in the boot variables.
kickstart	(Optional) Displays the impact of installing the kickstart image referred to in the kickstart boot variable.
system	(Optional) Displays the impact of installing the system image referred to in the kickstart boot variable.
status	Displays the status of the software installation process.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)	Added the **failed-standby** keyword.
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **show install all** command only in the default virtual device context (VDC).

This command does not require a license.

Examples

This example shows how to display the installation failure reason:

```
switch# show install all failure-reason
No install all failure-reason
```

This example shows how to display the impact of installing new images:

```
switch# show install all impact

Verifying image bootflash:/n7000-s1-kickstart.4.0.2.bin for boot variable "
kickstart".
[####################] 100% -- SUCCESS

Verifying image bootflash:/n7000-s1-dk9.4.0.2.bin for boot variable "system
".
[####################] 100% -- SUCCESS

Verifying image type.
[####################] 100% -- SUCCESS

Extracting "lc1n7k" version from image bootflash:/n7000-s1-dk9.4.0.2.bin.
[####################] 100% -- SUCCESS

Extracting "bios" version from image bootflash:/n7000-s1-dk9.4.0.2.bin.
[####################] 100% -- SUCCESS

Extracting "system" version from image bootflash:/n7000-s1-dk9.4.0.2.bin.
[####################] 100% -- SUCCESS

Extracting "kickstart" version from image bootflash:/n7000-s1-kickstart.4.0.2.gb
in.S22.
[####################] 100% -- SUCCESS



Compatibility check is done:
Module  bootable          Impact  Install-type  Reason
------  --------  --------------  ------------  ------
     2       yes  non-disruptive          none
     6       yes  non-disruptive          none



Images will be upgraded according to following table:
Module       Image                  Running-Version(pri:alt)           New-Versi
on  Upg-Required
------  ----------  ----------------------------------------  ------------------
--  ------------
     2      lc1n7k                                     4.0(2)                4.0(
2)            no
     2        bios     v1.10.5(02/27/08):  v1.10.5(02/27/08)     v1.10.5(02/27/0
8)            no
     6      system                                     4.0(2)                4.0(
2)            no
     6   kickstart                                     4.0(2)                4.0(
2)            no
     6        bios     v3.17.0(03/23/08):  v3.17.0(03/23/08)     v3.17.0(03/23/0
8)            no
```

This example shows how to display the status of a software installation:

```
switch# show install all status

There is an on-going installation...

Enter Ctrl-C to go back to the prompt.

Verifying image bootflash:/n7000-s1-kickstart.4.0.2.bin

-- SUCCESS

Verifying image bootflash:/n7000-s1-dk9.4.0.2.bin

-- SUCCESS

Extracting "system" version from image bootflash:/n7000-s1-dk9.4.0.2.bin.

-- SUCCESS

Extracting "kickstart" version from image bootflash:/n7000-s1-kickstart.4.0.2.bin.

-- SUCCESS

Extracting "loader" version from image bootflash:/n7000-s1-kickstart.4.0.2.bin.

-- SUCCESS
```

Related Commands

Command	Description
clear install all failed-standby	Clears the software installation failure log for the standby supervisor module.
install all	Installs the software on the physical device.
show boot	Displays the boot variable configuration.

show license

To display license information, use the **show license** command.

show license [**brief** | **file** *filename*]

Syntax Description		
	brief	(Optional) Displays a list of license files installed on a device.
	file *filename*	(Optional) Displays information for a specific license file.

Defaults

Displays information about the installed licenses.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display a specific license installed on a device:

```
switch# show license file Enterprise.lic
Enterprise.lic:
SERVER this_host ANY
VENDOR cisco
INCREMENT LAN_ENTERPRISE_SERVICES_PKG cisco 1.0 permanent uncounted \
        VENDOR_STRING=<LIC_SOURCE>MDS_SWIFT</LIC_SOURCE><SKU>N7K-LAN1K9=</SKU> \
        HOSTID=VDH=TBC10412106 \
        NOTICE="<LicFileID>20071025133322456</LicFileID><LicLineID>1</LicLineID>
 \
        <PAK></PAK>" SIGN=0CC6E2245FBE
```

This example shows how to display a list of license files installed on a device:

```
switch# show license brief
Enterprise.lic:
```

This example shows how to display all licenses installed on a device:

```
switch# show license
Enterprise.lic:
SERVER this_host ANY
VENDOR cisco
INCREMENT LAN_ENTERPRISE_SERVICES_PKG cisco 1.0 permanent uncounted \
        VENDOR_STRING=<LIC_SOURCE>MDS_SWIFT</LIC_SOURCE><SKU>N7K-LAN1K9=</SKU> \
        HOSTID=VDH=TBC10412106 \
        NOTICE="<LicFileID>20071025133322456</LicFileID><LicLineID>1</LicLineID>
 \
        <PAK></PAK>" SIGN=0CC6E2245FBE
```

show license feature package mapping

To display license information of the packages that are available for the features on a Cisco NX-OS device, use the **show license feature package mapping** command.

show license feature package mapping

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display license information about the packages that are available for the features:

```
switch# show license feature package mapping

------------------------
Feature-Name: fcoe
------------------------

Linecard-Type        :AIDA
Package All or Any   :any
Package-Name(ver)    :FCOE-N7K-F132XP(1.0)

------------------------
Feature-Name: lisp
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :TRANSPORT_SERVICES_PKG(1.0)

------------------------
```

```
Feature-Name: mpls_te
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :MPLS_PKG(1.0)

------------------------
Feature-Name: l3vpn
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :MPLS_PKG(1.0)

------------------------
Feature-Name: ldp
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :MPLS_PKG(1.0)

switch(config)# show license feature
                                      ^
% Incomplete command at '^' marker.
switch(config)# show license feature  package
                                              ^
% Incomplete command at '^' marker.
switch(config)# show license feature  package  mapping

------------------------
Feature-Name: fcoe
------------------------

Linecard-Type        :AIDA
Package All or Any   :any
Package-Name(ver)    :FCOE-N7K-F132XP(1.0)

------------------------
Feature-Name: lisp
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :TRANSPORT_SERVICES_PKG(1.0)

------------------------
Feature-Name: mpls_te
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :MPLS_PKG(1.0)

------------------------
Feature-Name: l3vpn
------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :MPLS_PKG(1.0)

------------------------
```

```
Feature-Name: ldp
-------------------------

Linecard-Type        :SUP
Package All or Any   :any
Package-Name(ver)    :MPLS_PKG(1.0)

switch#
```

Related Commands

Command	Description
show license	Displays license information.
show license usage	Displays license usage information.

show license host-id

To display the serial number for the chassis to use for licensing, use the **show license host-id** command.

show license host-id

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The serial number is the entire string that appears after the colon (:).

This command does not require a license.

Examples

This example shows how to display the host ID, which is required to request node-locked licenses:

```
switch# show license host-id
License hostid:VDH=4C0AF664
```

show license usage

To display license usage information, use the **show license usage** command.

show license usage [**vdc-all**] [**LAN_ADVANCED_SERVICES_PKG** | **LAN_ENTERPRISE_SERVICES_PKG**]

Syntax Description

vdc-all	(Optional) Displays license information for all VDCs.
LAN_ADVANCED_SERVICES_PKG	(Optional) Displays a list of licensed features in use for the Advanced Services license package.
LAN_ENTERPRISE_SERVICES_PKG	(Optional) Displays a list of licensed features in use for the Enterprise Services license package.

Defaults

Displays license usage information for the local VDC.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display information about the current license usage for the local VDC:

```
switch# show license usage
Feature                      Ins  Lic   Status Expiry Date Comments
                                Count
--------------------------------------------------------------------------------
LAN_ADVANCED_SERVICES_PKG     No    -   In use             Grace 116D 20H
LAN_ENTERPRISE_SERVICES_PKG   No    -   In use             Grace 116D 20H
--------------------------------------------------------------------------------
```

Table 6 describes the significant fields shown in the display.

Table 6 show license usage Field Description

Field	Description
Feature	Name of the license package.
Ins	License installation status. “No” indicates that the license is not installed, and “Yes” indicates that the license is installed.
Lic Count	License count. “-” indicates that the count is not used for this license package. A number in this field indicates the number of current usages of the license by features. This field is not supported.
Status	License status. “Unused” indicates that no features that require the license are enabled. “In use” indicates that one or more features are using the license.
Expiry Date	License expiry date. The field is blank if the license is not installed. If the license is installed, the field displays “Never” to indicate that the license has no time limit or displays the date of expiry for the license.
Comments	Additional information. “Grace” with a time period remaining in days (“D”) and hours (“H”) indicates that the grace license is in use, and “license missing” indicates that an error has occurred.

This example shows how to display a list of features in use for a specific license:

```
switch# show license usage LAN_ENTERPRISE_SERVICES_PKG
Application
-----------
bgp
ospf
-----------
```

This example shows how to display a list of features in use for a specific license for all VDCs:

```
switch# show license usage vdc-all LAN_ENTERPRISE_SERVICES_PKG
Application
-----------
bgp
ospf
bgp@2
ospf@2
-----------
```

Note The “@2” characters after the feature name in the command output indicate that the feature is enabled in VDC 2. Use the **show vdc** command to display the VDC name and identifier information.

show line

To display COM1 and console port configuration information, use the **show line** command.

show line [**com1** | **console**]

Syntax Description

com1	(Optional) Displays only information about the COM1 port configuration.
console	(Optional) Displays only information about the console port configuration.

Defaults

Displays information about the COM1 port and the console port configuration.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display information about the console port and COM1 port configuration:

```
switch# show line
line Console:
    Speed:        115200 baud
    Databits:     8 bits per byte
    Stopbits:     1 bit(s)
    Parity:       none
    Modem In: Disable
    Modem Init-String -
        default : ATE0Q1&D2&C1S0=1\015
Statistics:  tx:26197  rx:805     Register Bits:RTS|CTS|DTR|DSR|CD|RI
line Aux:
    Speed:        9600 baud
    Databits:     8 bits per byte
    Stopbits:     1 bit(s)
    Parity:       none
    Modem In: Enable
    Modem Init-String -
        default : ATE0Q1&D2&C1S0=1\015
    Hardware Flowcontrol: ON
Statistics:  +ò  Çêe+     Register Bits:RTS|CTS|DTR|DSR|CD|RI
```

This example shows how to display only information about the console port configuration:

```
switch# show line console
line Console:
    Speed:        115200 baud
    Databits:     8 bits per byte
    Stopbits:     1 bit(s)
    Parity:       none
    Modem In: Disable
    Modem Init-String -
        default : ATE0Q1&D2&C1S0=1\015
Statistics:  tx:26197  rx:805     Register Bits:RTS|CTS|DTR|DSR|CD|RI
```

Related Commands

Command	Description
line com1	Enters the COM1 port configuration mode.
line console	Enters the console port configuration mode.

show running-config

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

show running-config [**all | exclude** *component-list*]

Syntax Description

all	(Optional) Displays all the default and configured information.
exclude *component-list*	(Optional) Removes the components from the command output. The *component-list* argument is a space-separated list and can contain a maximum of four component names.

Defaults

Displays only the configured information.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.2(1)	Added the **exclude** option.
4.0(1)	This command was introduced.

Usage Guidelines

You can use the context-sensitive command-line interface (CLI) help to display the list of valid component names.

This command does not require a license.

Examples

This example shows how to display the changes that you have made to the running configuration:

```
switch# show running-config
```

This example shows how to display the entire running configuration, including the default values:

```
switch# show running-config all
```

This example shows how to exclude the ACL manager and Control Plane Policing (CoPP) components from the command output:

```
switch# show running-config exclude aclmgr copp
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config diff	Displays the differences between the running configuration and the startup configuration.
show startup-config	Displays the startup configuration.

show running-config diff

To display the differences between the running configuration and the startup configuration, use the **show running-config diff** command.

show running-config diff

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Table 7 describes the notations used in the command output.

Table 7 show running-config diff Notations

Notation	Description
********** *–– line1, line2 ––– *** line1, line2 ****	Indicates ranges of lines where differences occur. The range of lines indicated with asterisks (*) is for the startup configuration, and the range indicated with dashes (–) is for the startup configuration.
+ *text*	Indicates that the line is not in the running configuration but is in the startup configuration.
– *text*	Indicates that the line is in not the running configuration but it is in the startup configuration.
! *text*	Indicates that the line exists in both configurations but in a different order.

This command does not require a license.

Examples

This example shows how to display the difference between the running configuration and the startup configuration:

```
switch# show running-config diff
*** Startup-config
--- Running-config
***************
*** 48,76 ****
--- 48,83 ----
  username foo role network-admin
  username x password 5 !  role network-operator
  username user-op password 5 $1$ykZCz5Y2$npXjKVQhpa4U7EtwMauQG1  role network-o
perator
  telnet server enable
  ssh key rsa 768 force
+ ssh key dsa force
  ip domain-lookup
  ip host 172.28.231.193 172.28.231.193
  kernel core target 0.0.0.0
...
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config	Displays the running configuration.
show startup-config	Displays the startup configuration.

show startup-config

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

show startup-config [**exclude** *component-list*]

Syntax Description		
	exclude *component-list*	(Optional) Removes the components from the command output. The *component-list* argument is a space-separated list and can contain a maximum of four component names.

Defaults None

Command Modes Any command mode

SupportedUserRoles network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.2(1)	Added the **exclude** option.
4.0(1)	This command was introduced.

Usage Guidelines You can use the context-sensitive command-line interface (CLI) help to display the list of valid component names.

This command does not require a license.

Examples This example shows how to display the startup configuration:

```
switch# show startup-config
```

This example shows how to exclude the ACL manager and Control Plane Policing (CoPP) components from the command output:

```
switch# show startup-config exclude aclmgr copp
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config	Displays the running configuration.
show running-config diff	Displays the differences between the running configuration and the startup configuration.

show switchname

To display the hostname for the device, use the **show switchname** command.

show switchname

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The **show hostname** command also displays the device hostname.

This command does not require a license.

Examples

This example shows how to display the hostname for the device:

```
switch# show switchname
```

Related Commands

Command	Description
show hostname	Displays the hostname.
switchname	Configures the hostname for the device.

show system internal dir

To display the temporary (tmp) directory files in the file system, use the **show system internal dir** command.

show system internal dir *dir-path*

Syntax Description		
	dir-path	Files in the tmp directory.

Defaults None

Command Modes Any command mode

SupportedUserRoles
network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.2(3)	This command was introduced.

Usage Guidelines Use the **show system internal dir /var/tmp** command to check which files are in the tmp directory.

This command does not require a license.

Examples This example shows how to display the files in the tmp directory:

```
switch# show system internal dir /var/tmp
```

Related Commands

Command	Description
show hostname	Displays the hostname.

show tech-support

To display information about Cisco technical support, use the **show tech-support** command.

show tech-support [**brief** | **commands** | **details** | *feature*]

Syntax Description

brief	(Optional) Displays information only about the status of the device.
commands	(Optional) Displays the complete list of commands that are executed by the **show tech-support** command.
details	(Optional) Displays detailed information for troubleshooting.
feature	(Optional) Specific feature name. Use the command-line interface (CLI) context-sensitive help (for example, **show tech-support ?**) for the list of features.

Defaults

Displays information for all features.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The output from the **show tech-support** command is very long. To better manage this output, you can redirect the output to a file (for example, **show tech-support >** bootflash:*filename*).

If you need to contact your customer support representative or Cisco TAC to resolve an issue, use the **show tech-support details** command to collect system information and configuration details. Redirect the output of the **show tech-support details** command to a file using the **tac-pac** command.

This command does not require a license.

Examples

This example shows how to display technical support information and redirect it to a file:

```
switch# show tech-support > bootflash:tsupport_file
```

This example shows how to display the brief technical support information for the device:

```
switch# show tech-support brief
```

This example shows how to display the technical support information for a feature:

```
switch# show tech-support aaa
```

This example shows how to display the commands to generate the technical support information:

```
switch# show tech-support commands
```

Related Commands

Command	Descriptioin
tac-pac	Saves system information in a compressed .gz file.

show terminal

To display information about the terminal configuration for a session, use the **show terminal** command.

show terminal

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display information about the terminal configuration for a session:

```
switch# show terminal
TTY: /dev/pts/41 Type: "ansi"
Length: 31 lines, Width: 80 columns
Session Timeout: None
```

Related Commands

Command	Description
terminal length	Configures the terminal display length for the session.
terminal session-timeout	Configures the terminal inactive session timeout for a session.
terminal type	Configures the terminal type for a session.
terminal width	Configures the terminal display width for a session.

show version

To display information about the software version, use the **show version** command.

show version [**build-info** [**all**] | **epld** *filename* | **fan** *fan-number* **epld** | **image** *filename* | **module** *slot* [**epld**] | **xbar** *xbar-number* **epld**]

Syntax Description

build-info	(Optional) Displays the build information for the currently running system image.
all	(Optional) Displays the build information for the currently running system image and the corresponding kickstart image.
epld *filename*	(Optional) Displays the version information for an electrically programmable logic device (EPLD) image file.
fan *fan-number* **epld**	(Optional) Displays the EPLD version information for a fan.
image *filename*	(Optional) Displays the version information for a system or kickstart image file.
module *slot*	(Optional) Displays the version information for an I/O module image and BIOS.
epld	(Optional) Displays the version information for EPLD images on an I/O module.
xbar *xbar-number* **epld**	(Optional) Displays the EPLD version information for a fabric module.

Defaults

Displays software version information for the running kickstart and system images.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin
network-operator
vdc-operator

Command History

Release	Modification
4.1(2)‘	Added the **build-info** keyword.
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the version information for the kickstart and system images running on the device:

```
switch# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2008, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php

Software
  BIOS:      version 3.17.0
  loader:    version N/A
  kickstart: version 4.0(1a) [gdb]
  system:    version 4.0(1a) [gdb]
  BIOS compile time:       03/23/08
  kickstart image file is: bootflash:/n7000-s1-kickstart.4.0.1a.bin
  kickstart compile time:  5/8/2008 13:00:00 [05/20/2008 07:52:26]
  system image file is:    bootflash:/n7000-s1-dk9.4.0.1a.bin
  system compile time:     5/8/2008 13:00:00 [05/20/2008 08:35:00]


Hardware
  cisco Nexus7000 C7010 (10 Slot) Chassis ("Supervisor module-1X")
  Intel(R) Xeon(R) CPU         with 2063436 kB of memory.
  Processor Board ID JAB10380101

  Device name: switch
  bootflash:    1023120 kB
  slot0:              0 kB (expansion flash)

Kernel uptime is 1 day(s), 3 hour(s), 48 minute(s), 20 second(s)

Last reset at 761445 usecs after  Wed May 21 11:46:23 2008

  Reason: Reset Requested by CLI command reload
  System version: 4.0(1.51)
  Service:

plugin
  Core Plugin, Ethernet Plugin

CMP (Module 6) no response

CMP (Module 5) no response
```

This example shows how to display the version information for an image file:

```
switch# show version image bootflash:old_image
  image name: old_image
  bios:       v3.15.0(03/04/08)
  system:     version 4.0(1a)
  compiled:   4/3/2008 8:00:00 [04/18/2008 08:26:29]
```

This example shows how to display the version information for an I/O module:

```
switch# show version module 2
ModNo   Image Type   SW Version   SW Interim Version  BIOS Version
2       SLC          4.0(1a)       4.0(1a)              1.10.5
```

This example shows how to display the version information for the EPLD images on an I/O module:

```
switch# show version module 2 epld

EPLD Device                     Version
---------------------------------------
Power Manager                    2.9
IO                               1.17
Forwarding Engine                1.4
```

This example shows how to display the version information for the EPLD images on a fabric module:

```
switch# show version xbar 1 epld

EPLD Device                     Version
---------------------------------------
Power Manager                    2.4
```

sleep

To cause the command-line interface (CLI) to pause before displaying the prompt, use the **sleep** command.

sleep *seconds*

Syntax Description

seconds	Number of seconds. The range is from 0 to 2147483647.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **sleep** command scripts to delay the execution of the script.

This command does not require a license.

Examples

This example shows how to cause the CLI to pause before displaying the prompt:

```
switch# sleep 5
```

slot

To issue commands to an I/O module from the supervisor module session, use the **slot** command.

slot *slot-number* {*command-string* | **quoted "***command-string***"**}

Syntax Description

slot-number	Chassis slot number for the I/O module. The range is from 1 to 18.
command-string	Commands to send to the I/O module. If you want to send more than one command to the I/O module, separate the commands with a space, a semicolon (;), and a space.
quoted	Indicates that the command string is enclosed in double quotation marks.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

You can use the **slot** command instead of starting a session on the I/O module with the **attach** command.

By default, the keyword and arguments in the *command-string* argument are separated by a space. To send more than one command to a module, separate the commands with a space character, a semicolon character (;), and a space character.

The **quoted** keyword indicates that the command string begins and ends with double quotation marks (" "). Use this keyword when you want to redirect the module command output to a filtering utility, such as diff, that is supported only on the supervisor module session.

This command does not require a license.

Examples

This example shows how to send commands to an I/O module from the supervisor module session:

```
switch# slot 1 show system uptime ; show version
System start time:          Tue Aug  4 15:09:49 2009
System uptime:              6 days, 17 hours, 50 minutes, 55 seconds
Kernel uptime:              6 days, 17 hours, 53 minutes, 7 seconds
RAM 516692 kB
lc1
Software
  BIOS:      version 1.10.6
  system:    version 4.2(1) [build 4.2(1)]


  BIOS compile time:       11/04/08
  system compile time:     7/3/2009 2:00:00 [08/02/2009 07:15:39]


Hardware
    bootflash: 0 blocks (block size 512b)

   uptime is 6 days 17 hours 53 minute(s) 7 second(s)
```

This example shows how to send a quoted command to an I/O module from the supervisor module session:

```
switch# slot 1 quoted "show system uptime" | diff
switch# slot 1 quoted "show system uptime" | diff -c
*** /volatile/vsh_diff_1_admin_4849_slot__quoted_show_system_uptime.old Tue Aug 11
09:16:14 2009
--- -   Tue Aug 11 09:16:14 2009
***************
*** 1,3 ****
  System start time:          Tue Aug  4 15:09:49 2009
! System uptime:              6 days, 18 hours, 6 minutes, 13 seconds
! Kernel uptime:              6 days, 18 hours, 8 minutes, 25 seconds
--- 1,3 ----
  System start time:          Tue Aug  4 15:09:49 2009
! System uptime:              6 days, 18 hours, 6 minutes, 36 seconds
! Kernel uptime:              6 days, 18 hours, 8 minutes, 48 seconds
```

Related Commands

Command	Description
attach module	Starts a command session on an I/O module.

source

To run a tcl/python script, use the **source** command.

source *filename* [*argument* ...]

Syntax Description

filename	The file in bootflash:scripts directory. Depending on the language of the script, the first line of the file has to start with one of the following: #!/bin/env tclsh #!/bin/env python The TCL or Python script can run CLI commands with the new TCL/Python command **cli**.
argument	(Optional) arguments. Refer to *Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide* for information on arguments and accessing online help for arguments.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
6.1(2)	This command was introduced.

Usage Guidelines

Python is operated in noninteractive mode when using the **source** command. To invoke interactive mode, use the **python** command.

This command does not require a license.

Examples

This example shows how to invoke a Python script:

```
switch# show file bootflash:scripts/test.py !--bootflash:scripts directory
                                            != is the default script directory
#!/bin/env python         !-- Invoke Python to run testl.py script
)
i=0
while i<3
  r=clip('show version')
  uptime_name='/@/show/version/_readonly_/kern_uptm_secs'
  print uptime_name, r[updtime_name]
  clid('sleep')
  i=i+1

switch# source test.py        !-- Default directory is /bootflash/script
/@/show/version/_readonly_/kern_uptm_secs 36
/@/show/version/_readonly_/kern_uptm_secs 38
/@/show/version/_readonly_/kern_uptm_secs 40
```

This example shows how a script accepts an argument:

```
root@switch# source ntimes 2 "show clock" !--Pass arguments '2' and 'show clock' to script

>>>>> iteration 1 for 'show clock'
21:27:21.716 UTC Tue Oct 09 2012
>>>>> iteration 2 for 'show clock'
21:27:21.730 UTC Tue Oct 09 2012
root@switch#
```

Related Commands

Command	Description
python	Invokes python interpreter in interactive mode.

sscp

To copy command output to or from Cisco devices securely, use the **sscp** command.

command | sscp *mybox /users/user-name/host-name*

Syntax Description

command	Specifies a command that produces command-line interface (CLI) output.
mybox	Name of the Secure Shell (SSH) connection.
/users/user-name/host-name	Path and name of the file on the remote host.

Defaults

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.0(2)	This command was introduced.

Usage Guidelines

You must create a Secure Shell (SSH) connection before using the **sscp** command. You can create an SSH connection by using the **ssh name** command. Password is specified only once at the time of creation of the ssh-master-connection. So, you do not have to enter the password again.

If the SSH server is running on a Windows system, you must copy the cat.exe file from the binutils of GNU into the Windows path.

The **sscp** command is used at the end of the pipe (|).

This command does not require a license.

Examples

This example shows how to use the Streaming Secure Copy Protocol (SSCP) as the transfer mechanism:

```
switch# ssh name mybox admin 172.22.36.10
                              WARNING!!!
                    READ THIS BEFORE ATTEMPTING TO LOGON

      This System is for the use of authorized users only.  Individuals
      using this computer without authority, or in excess of their
      ...

admin@172.23.152.34's password:
switch# show version | sscp mybox /users/admin/tada
switch#
```

stopbits

To configure the stop bits for the COM1 port or console port, use the **stopbits** command. To revert to the default, use the **no** form of this command.

stopbits {**1** | **2**}

no stopbits {**1** | **2**}

Syntax Description

1	Specifies one stop bit.
2	Specifies two stop bits.

Defaults

1 stop bit

Command Modes

COM1 port configuration mode
Console port configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

You can use the **stopbits** command only in the default virtual device context (VDC).

You can configure the console and COM1 ports only from a session on the console port.

This command does not require a license.

Examples

This example shows how to configure the number of stop bits for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# stopbits 2
```

This example shows how to configure the number of stop bits for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# stopbits 2
```

This example shows how to revert to the default number of stop bits for the COM1 port:

```
switch# configure terminal
switch(config)# line com1
switch(config-com1)# no stopbits 2
```

This example shows how to revert to the default number of stop bits for the console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no stopbits 2
```

Related Commands

Command	Description
show line	Displays information about the COM1 port and console port configuration.

switchname

To configure the hostname for the device, use the **switchname** command. To revert to the default, use the **no** form of this command.

switchname *name*

no switchname

Syntax Description

name	Name for the device. The name is alphanumeric, case sensitive, can contain special characters, and can have a maximum of 32 characters.

Defaults

switch

Command Modes

Global configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The Cisco NX-OS software uses the hostname in command-line interface (CLI) prompts and in default configuration filenames.

The **switchname** command performs the same function as the **hostname** command.

This command does not require a license.

Examples

This example shows how to configure the device hostname:

```
switch# configure terminal
switch(config)# switchname Engineering2
Engineering2(config)#
```

This example shows how to revert to the default device hostname:

```
Engineering2# configure terminal
Engineering2(config)# no switchname
switch(config)#
```

Related Commands

Command	Description
hostname	Configures the device hostname.
show switchname	Displays the device hostname.

tac-pac

To save system information in a compressed .gz file at a specific location, use the **tac-pac** command.

tac-pac [bootflash: | ftp: | scp: | sftp: | slot0: | tftp: | volatile:]

Syntax Description

bootflash:	(Optional) Specifies the internal Flash memory.
ftp:	(Optional) Uses FTP to download the file.
scp:	(Optional) Uses Secure Copy Protocol (SCP) to download the file.
sftp:	(Optional) Uses Secure Shell FTP (SFTP) to download the file.
slot0:	(Optional) Specifies the external Flash memory.
tftp:	(Optional) Uses Trivial FTP (TFTP) to download the file.
volatile:	(Optional) Specifies the volatile memory on the device.

Command Default

None

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **tac-pac** command to redirect the output of the **show tech-support details** command to a file, and then gzip the file.

If you do not specify a filename, Cisco NX-OS creates the file as volatile:show_tech_out.gz.

This command does not require a license.

Examples

This example shows how to save the output of the **show tech-support details** command to the bootflash:.

```
switch# tac-pac bootflash://showtech.switch1
```

Related Commands

Command	Description
show tech-support	Displays information about Cisco technical support.

tail

To display the last lines of a file, use the **tail** command.

tail [*filesystem***:**[*//module/*]][*directory/*]*filename lines*]

Syntax Description

*filesystem***:**	(Optional) Name of a file system. The name is case sensitive.
//module/	(Optional) Identifier for a supervisor module. Valid values are **sup-active**, **sup-local**, **sup-remote**, or **sup-standby**. The identifiers are case sensitive.
directory/	(Optional) Name of a directory. The name is case sensitive.
filename	Name of the command file. The name is case sensitive.
lines	(Optional) Number of lines to display. The range is from 0 to 80.

Defaults

10 lines

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the last 10 lines of a file:

```
switch# tail bootflash:startup.cfg
ip arp inspection filter marp vlan 9
ip dhcp snooping vlan 13
ip arp inspection vlan 13
ip dhcp snooping
ip arp inspection validate src-mac dst-mac ip
ip source binding 10.3.2.2 0f00.60b3.2333 vlan 13 interface Ethernet2/46
ip source binding 10.2.2.2 0060.3454.4555 vlan 100 interface Ethernet2/10
logging level dhcp_snoop 6
logging level eth_port_channel 6
```

This example shows how to display the last 20 lines of a file:

```
switch# tail bootflash:startup.cfg 20
area 99 virtual-link 1.2.3.4
router rip Enterprise
router rip foo
  address-family ipv4 unicast
router bgp 33.33
event manager applet sdtest
monitor session 1
monitor session 2
ip dhcp snooping vlan 1
ip arp inspection vlan 1
ip arp inspection filter marp vlan 9
ip dhcp snooping vlan 13
ip arp inspection vlan 13
ip dhcp snooping
ip arp inspection validate src-mac dst-mac ip
ip source binding 10.3.2.2 0f00.60b3.2333 vlan 13 interface Ethernet2/46
ip source binding 10.2.2.2 0060.3454.4555 vlan 100 interface Ethernet2/10
logging level dhcp_snoop 6
logging level eth_port_channel 6
```

Related Commands

Command	Description
cd	Changes the current working directory.
copy	Copies files.
dir	Displays the directory contents.
pwd	Displays the name of the current working directory.

tar append

To append files to a tar archive file, use the **tar append** command.

tar append {**bootflash:** | **volatile:**}*archive-filename* [**absolute**] [**remove**] [**verbose**] *filename-list*

Syntax Description

bootflash	Specifies the internal CompactFlash memory located on the active supervisor module used for storing image files, configuration files, and other miscellaneous files. The initial default directory is bootflash.
volatile	Specifies the volatile random-access memory that is located on a supervisor module used for temporary or pending changes.
archive-filename	Name of an existing tar archive file.
absolute	(Optional) Uses the filenames without stripping leading backslashes (/).
remove	(Optional) Removes the files after adding them to the archive file.
verbose	(Optional) Displays the filenames when the Cisco NX-OS software appends them to the archive file.
filename-list	Space-separated list of filenames. The files must be only on bootflash: or volatile:.

Defaults

Adds the tar.gz extension to the archive filename if you do not enter an extension.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

You must create an archive file using the **tar create** command before you can append files to it.

This command does not require a license.

Examples

This example shows how to append two files to the end of an archive file:

```
switch# tar append bootflash:testarchive.tar.gz newfile1 newfile2
```

This example shows how to append two files to the end of an archive file and display the filenames as they are appended:

```
switch# tar append bootflash:testarchive.tar.gz verbose newfile1 newfile2
/bootflash/newfile1
/bootflash/newfile2
```

This example shows how to append two files to the end of an archive file and remove those files from the device:

```
switch# tar append bootflash:testarchive.tar.gz remove newfile1 newfile2
```

Related Commands

Command	Description
tar create	Creates an archive file.
tar extract	Extracts the files from an archive file.
tar list	Displays the contents of an archive file.

tar create

To create a tar archive file, use the **tar create** command.

tar create {**bootflash:** | **volatile:**}*archive-filename* [**absolute**] [**bz2-compress**] [**gz-compress**] [**remove**] [**uncompressed**] [**verbose**] *filename-list*

Syntax Description

bootflash	Specifies the internal CompactFlash memory located on the active supervisor module used for storing image files, configuration files, and other miscellaneous files. The initial default directory is bootflash.
volatile	Specifies the volatile random-access memory that is located on a supervisor module used for temporary or pending changes.
archive-filename	Name of an existing tar archive file.
absolute	(Optional) Uses the filenames without removing the leading backslashes (/).
bz2-compress	(Optional) Compresses the files when they are added to the archive file by using the bzip 2 utility. With this option, the archive file extension is .tar.bz2.
gz-compress	(Optional) Compresses the files when they are added to the archive file by using the gzip utility. With this option, the archive file extension is .tar.gz.
remove	(Optional) Removes the files after adding them to the archive file.
uncompressed	(Optional) Adds the files to the archive file without compression. With this option, the archive file extension is .tar.
verbose	(Optional) Displays the filenames when the Cisco NX-OS software appends them to the archive file.
filename-list	Space-separated list of filenames. The files must be only on bootflash: or volatile:.

Defaults

gz-compress

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	Added the **absolute**, **bz2-compress**, and **uncompressed** optional keywords. Changed the **compress** keyword to **gz-compress**.
4.1(2)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to create a tar archive file and add two files:

```
switch# tar create bootflash:testarchive.tar.gz newfile1 newfile2
```

This example shows how to create a tar archive file, add two files, and display the filenames as they are appended:

```
switch# tar create bootflash:testarchive.tar.gz verbose newfile1 newfile2
/bootflash/newfile1
/bootflash/newfile2
```

This example shows how to create a tar archive file, add two files, and remove those files from the device:

```
switch# tar create bootflash:testarchive.tar.gz remove newfile1 newfile2
```

Related Commands

Command	Description
tar append	Appends files to the end of an archive file.
tar extract	Extracts the files from an archive file.
tar list	Displays the contents of an archive file.

tar extract

To extract files from a tar archive file, use the **tar extract** command.

tar extract {**bootflash:** | **volatile:**}*archive-filename* [**keep-old**] [**screen**] [**to** {**bootflash:** | **volatile:**}*filename*] [**verbose**]

Syntax Description

bootflash	Specifies the internal CompactFlash memory located on the active supervisor module used for storing image files, configuration files, and other miscellaneous files. The initial default directory is bootflash.
volatile	Specifies the volatile random-access memory that is located on a supervisor module used for temporary or pending changes.
archive-filename	Name of an existing tar archive file.
keep-old	(Optional) Specifies to not overwrite existing files.
screen	(Optional) Extracts only to the terminal session screen.
to	(Optional) Extracts to another tar archive file. The target archive file must exist on the device before you can extract files to it.
filename	Name of the file that you want to create.
verbose	(Optional) Displays the filenames when the Cisco NX-OS software appends them to the archive file.

Defaults

Adds the tar.gz extension to the archive filename if you do not enter an extension.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	Added the **keep-old** and **to** optional keywords.
4.1(2)	This command was introduced.

Usage Guidelines

You must create an archive file using the **tar create** command before you can extract files from it.

This command does not require a license.

Examples

This example shows how to extract files from an archive file:

```
switch# tar extract bootflash:testarchive.tar.gz
```

This example shows how to extract files from an archive file and display the filenames as they are extracted:

```
switch# tar extract bootflash:testarchive.tar.gz verbose newfile1 newfile2
/bootflash/newfile1
/bootflash/newfile2
```

Related Commands

Command	Description
tar append	Appends files to the end of an archive file.
tar create	Creates an archive file.
tar list	Displays the contents of an archive file.

tar list

To list the files in a tar archive file, use the **tar list** command.

tar list {**bootflash:** | **volatile:**}*archive-filename*

Syntax Description

bootflash	Specifies the internal CompactFlash memory located on the active supervisor module used for storing image files, configuration files, and other miscellaneous files. The initial default directory is bootflash.
volatile	Specifies the volatile random-access memory that is located on a supervisor module used for temporary or pending changes.
archive-filename	Name of an existing tar archive file.

Defaults

Adds the tar.gz extension to the archive filename if you do not enter an extension.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.1(2)	This command was introduced.

Usage Guidelines

You must create an archive file using the **tar create** command before you can list files.

This command does not require a license.

Examples

This example shows how to list files in an archive file:

```
switch# tar list bootflash:testfile.tar.gz
bootflash/newfile2
bootflash/newfile1
```

Related Commands

Command	Description
tar append	Appends files to the end of an archive file.
tar create	Creates an archive file.
tar extract	Extracts the files from an archive file.

terminal alias

To display and define command aliases for the user session, use the **terminal alias** command. To remove the alias definition, use the **no** form of this command.

terminal alias [**persist**] [*alias-name alias-definition*]

no terminal alias [**persist**] [*alias-name alias-definition*]

Syntax Description

persist	(Optional) Makes the setting persistent for the current and future sessions for the current user.
alias-name	(Optional) Name of the alias.
alias-definition	Alias definition.

Defaults

Displays the command aliases available to the user session.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

Aliases that you define with the **terminal alias** command are available only to the current user. Other users cannot use these command aliases. To create aliases that other users can access, use the **cli alias name** command.

This command does not require a license.

Examples

This example shows how to define a command alias only for the current user session:

```
switch# terminal alias shint show interface brief
```

This example shows how to define a command alias to persist across sessions for the current user:

```
switch# terminal alias persist shver show version
```

This example shows how to display the command aliases available to the current user session:

```
switch# terminal alias
CLI alias commands
==================
shint  :show interface brief
------------------
alias  :show cli alias
```

This example shows how to remove a temporary command alias for the user session:

```
switch# no terminal alias shint
```

Related Commands

Command	Description
cli alias name	Configures command aliases for all user sessions.

terminal color

To change the colors used when displaying the commands and output on the command-line interface (CLI) for the user session, use the **terminal color** command. To revert to the default, use the **no** form of this command.

terminal color [**persist**]

no terminal color [**persist**]

Syntax Description

persist	(Optional) Makes the setting persistent for the current and future sessions for the current user.

Defaults

All CLI prompts, commands, and command outputs display in colors that are defined by the terminal emulator.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

The **terminal color** command changes the CLI colors as follows:

- Displays the command prompt in green if the previous command was successful.
- Displays the command prompt in red if an error occurred in the previous command.
- Displays the command in blue.
- Displays the output in the default color defined by the terminal emulator.

The terminal colors setting applies only to the current user session. Use the **persist** keyword to change the setting for the current and future sessions for the current user.

This command does not require a license.

Examples

This example shows how to change the terminal display colors for the current user session:

```
switch# terminal color
```

This example shows how to change the terminal display colors for the current and future sessions for the current user:

```
switch# terminal color persist
```

This example shows how to revert to the default for the current user session:

```
switch# no terminal color
```

This example shows how to revert to the default for the current and future sessions for the current user:

```
switch# no terminal color persist
```

terminal dont-ask

To disable confirmation prompts on the command-line interface (CLI), use the **terminal dont-ask** command. To revert to the default, use the **no** form of this command.

terminal dont-ask [**persist**]

no terminal dont-ask [**persist**]

Syntax Description

persist	(Optional) Makes the setting persistent for the current and future sessions for the current user.

Defaults

Confirmation prompts are enabled.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

The terminal confirmation prompt setting applies only to the current user session. Use the **persist** keyword to change the setting for the current and future sessions for the current user.

This command does not require a license.

Examples

This example shows how to disable the CLI confirmation prompts for the current user session:

```
switch# terminal dont-ask
```

This example shows how to disable the CLI confirmation prompts for the current and future sessions for the current user:

```
switch# terminal dont-ask persist
```

This example shows how to enable the CLI confirmation prompts for the current user session:

```
switch# no terminal dont-ask
```

This example shows how to enable the CLI confirmation prompts for the current and future sessions for the current user:

```
switch# no terminal dont-ask persist
```

terminal edit-mode vi

To enable vi editing of recalled commands, use the **terminal edit-mode vi** command. To revert to the default, use the **no** form of this command.

terminal edit-mode vi [**persist**]

no terminal edit-mode vi [**persist**]

Syntax Description

persist	(Optional) Makes the setting persistent for the current and future sessions for the current user.

Defaults

emacs

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

The edit mode setting applies only to the current user session. Use the **persist** keyword to change the setting for the current and future sessions for the current user.

This command does not require a license.

Examples

This example shows how to change the edit mode for recalled commands to vi for the current user session:

```
switch# terminal edit-mode vi
```

This example shows how to change the edit mode for recalled commands to vi for the current and future sessions for the current user:

```
switch# terminal edit-mode vi persist
```

This example shows how to revert the edit mode for recalled commands to emacs for the current user session:

```
switch# no terminal edit-mode vi
```

This example shows how to revert the edit mode for recalled commands to emacs for the current and future sessions for the current user:

```
switch# no terminal edit-mode vi persist
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

terminal history no-exec-in-config

To remove the EXEC commands from the **show history** command output, use the **terminal history no-exec-in-config** command. To revert to the default, use the **no** form of this command.

terminal history no-exec-in-config

no terminal history no-exec-in-config

Syntax Description

This command has no arguments or keywords.

Defaults

The **show history** command always displays EXEC commands.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

The terminal history setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to remove the EXEC commands when recalling the command history from a configuration command mode:

```
switch# terminal history no-exec-in-config
```

This example shows how to revert to the default:

```
switch# no terminal history no-exec-in-config
```

terminal length

To set the number of lines of output to display on the terminal screen for the current session before pausing, use the **terminal length** command. To revert to the default, use the **no** form of this command.

terminal length *lines*

terminal no length

Syntax Description

lines	Number of lines to display. The range is from 0 to 511. Use 0 to not pause while displaying output.

Defaults

The initial default for the console is 0.
The initial default for virtual terminal sessions is 31.
The default for the **no** form is 24 lines.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The session pauses after displaying the number of lines set in the terminal length. Press the space bar to display another screen of lines or press the **Enter** key to display another line. To return to the command prompt, press **Ctrl**-**C**.

The terminal length setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to set the number of lines of command output to display on the terminal before pausing:

```
switch# terminal length 28
```

This example shows how to revert to the default number of lines:

```
switch# terminal no length
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

terminal log-all

To enable logging of all commands, including the **show** commands, to the accounting log, use the **terminal log-all** command. To revert to the default, use the **no** form of this command.

terminal log-all

terminal no log-all

Syntax Description

This command has no arguments or keywords.

Defaults

Does not log the **show** commands.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

The terminal log setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to enable logging of all commands in the accounting log:

```
switch# terminal log-all
```

This example shows how to disable logging of all commands in the accounting log:

```
switch# terminal no log-all
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

terminal redirection-mode

To configure the format of the output from **show** commands, use the **terminal redirection-mode** command.

terminal redirection-mode {**ascii** | **zipped**}

Syntax Description

ascii	Specifies the standard character format when redirecting **show** command output.
zipped	Specifies the zipped format when redirecting **show** command output.

Defaults

ascii

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.2(1)	This command was introduced.

Usage Guidelines

Some of the **show** commands have lengthy outputs, especially the debugging **show** commands such as the **show tech-support** command. You can use the **terminal redirection-mode** command to reduce the size of the file when you redirect the output from the command.

The terminal redirection mode setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to configure the zipped format for the terminal redirection mode:

```
switch# terminal redirection-mode zipped
```

This example shows how to configure the ASCII format for the terminal redirection mode:

```
switch# terminal redirection-mode ascii
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

terminal session-timeout

To set the terminal inactivity timeout for the current session, use the **terminal session-timeout** command. To revert to the default, use the **no** form of this command.

terminal session-timeout *minutes*

terminal no session-timeout

Syntax Description

minutes	Number of minutes. The range is from 0 to 525600 minutes (8760 hours).

Defaults

0 minutes

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

A value of 0 minutes disables the session timeout.

The terminal session inactivity timeout setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to set the terminal inactivity timeout for the session:

```
switch# terminal session-timeout 10
```

This example shows how to revert to the default terminal inactivity timeout for the session:

```
switch# terminal no session-timeout
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

terminal type

To set the terminal type for the current session, use the **terminal type** command. To revert to the default, use the **no** form of this command.

terminal type *type*

terminal no type

Syntax Description

type	Type of terminal. The type string is case sensitive, must be a valid type (for example, **vt100** or **xterm**), and has a maximum of 80 characters.

Defaults

ansi

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The terminal type setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to set the terminal type:

```
switch# terminal type xterm
```

This example shows how to revert to the default terminal type:

```
switch# terminal no type
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

terminal width

To set the number of character columns on the terminal screen for the current line for a session, use the **terminal width** command. To revert to the default, use the **no** form of this command.

terminal width *columns*

terminal no width

Syntax Description

columns	Number of columns. The range is from 24 to 511.

Defaults

80 columns

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The terminal width setting applies only to the current session.

This command does not require a license.

Examples

This example shows how to set the number of columns to display on the terminal:

```
switch# terminal width 70
```

This example shows how to revert to the default number of columns:

```
switch# terminal no width
```

Related Commands

Command	Description
show terminal	Displays the terminal session configuration.

traceroute

To discover the routes that packets take when traveling to an IPv4 address, use the **traceroute** command.

traceroute {*dest-ipv4-addr* | *hostname*} [**vrf** *vrf-name*] [**show-mpls-hops**] [**source** *src-ipv4-addr*]

Syntax Description

dest-ipv4-addr	IPv4 address of the destination device. The format is *A.B.C.D*.
hostname	Name of the destination device. The name is case sensitive.
vrf *vrf-name*	(Optional) Specifies the virtual routing and forwarding (VRF) to use. The name is case sensitive.
show-mpls-hops	(Optional) Displays the Multiprotocol Label Switching (MPLS) hops.
source *src-ipv4-addr*	(Optional) Specifies a source IPv4 address. The format is *A.B.C.D*.

Defaults

Uses the default VRF.
Does not show the MPLS hops.
Uses the management IPv4 address for the source address.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

To use IPv6 addressing for discovering the route to a device, use the **traceroute6** command.

This command does not require a license.

Examples

This example shows how to discover a route to a device:

```
switch# traceroute 172.28.255.18 vrf management
traceroute to 172.28.255.18 (172.28.255.18), 30 hops max, 40 byte packets
 1  172.28.230.1 (172.28.230.1)  0.746 ms  0.595 ms  0.479 ms
 2  172.24.114.213 (172.24.114.213)  0.592 ms  0.51 ms  0.486 ms
 3  172.20.147.50 (172.20.147.50)  0.701 ms  0.58 ms  0.486 ms
 4  172.28.255.18 (172.28.255.18)  0.495 ms  0.43 ms  0.482 ms
```

Related Commands

Command	Description
traceroute6	Discovers the route to a device using IPv6 addressing.

traceroute6

To discover the routes that packets take when traveling to an IPv6 address, use the **traceroute6** command.

traceroute6 {*dest-ipv6-addr* | *hostname*} [**vrf** *vrf-name*] [**source** *src-ipv6-addr*]

Syntax Description

dest-ipv6-addr	IPv6 address of the destination device. The format is *A*:*B*::*C*:*D*.
hostname	Name of the destination device. The name is case sensitive.
vrf *vrf-name*	(Optional) Specifies the virtual routing and forwarding (VRF) to use. The name is case sensitive.
source *src-ipv4-addr*	(Optional) Specifies a source IPv4 address. The format is *A*:*B*::*C*:*D*.

Defaults

Uses the default VRF.
Uses the management IPv6 address for the source address.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

To use IPv4 addressing for discovering the route to a device, use the **traceroute** command.

This command does not require a license.

Examples

This example shows how to discover a route to a device:

```
switch# traceroute6 2001:0DB8::200C:417A vrf management
```

Related Commands

Command	Description
traceroute	Discovers the route to a device using IPv4 addressing.

update license

To update an existing license, use the **update license** command.

update license {**bootflash: | slot0: | usb0: | usb1:**}*filename license-filename*

Syntax Description

bootflash:	Specifies the license file location in the internal bootflash memory.
slot0:	Specifies the license file in the CompactFlash memory or PCMCIA card.
usb0:	Specifies the license file in the external USB memory.
usb1:	Specifies the license file in the external USB memory.
filename	Name of the license file that needs to be installed.
license-filename	Name of the existing license file that needs to be updated.

Command Modes

Any command mode

SupportedUserRoles

network-admin

Command History

Release	Modification
4.2(1)	Added the *license filename* argument.
4.0(1)	This command was introduced.

Usage Guidelines

To view the existing license file name, use the **show license** command.

Note After installing the license, the system copies it to a hidden location. You can delete the license file from bootflash after installing it on the system.

You can use the **update license** command only in the default virtual device context (VDC).

This command does not require a license.

Examples

This example shows how to update a specific license:

```
switch# update license bootflash:Advanced2.lic Advanced1.lic
Updating Advanced1.lic:
SERVER this_host ANY
VENDOR cisco
Advanced1.lic:
FEATURE LAN_ADVANCED_SERVICES cisco 1.000 permanent 30 HOSTID=VDH=4C0AF664 \
        SIGN=24B2B68AA676

with bootflash:/Advance2.lic:
SERVER this_host ANY
VENDOR cisco
Advanced2.lic:
FEATURE LAN_ADVANCED_SERVICES cisco 1.000 permanent uncounted HOSTID=VDH=4C0AF664 \
        SIGN=CB7872B23700

Do you want to continue? (y/n) y
Updating license ..done
```

Related Commands

Command	Description
show license	Displays the license information.

where

To display your current context in the command-line interface (CLI), use the **where** command.

where [**detail**]

Syntax Description

detail	(Optional) Displays detailed context information.

Defaults

Displays summary context information.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

The **where** command helps you to keep track of where you are in the CLI and how you got to that place.

This command does not require a license.

Examples

This example shows how to display summary context information:

```
switch(config-if)# where
  ?conf; interface Ethernet2/3      admin@switch%default
```

This example shows how to display detailed context information:

```
switch(config-if)# where detail
  ?conf; interface Ethernet2/3      admin@switch%default
  mode:                conf
                         interface Ethernet2/3
  username:            admin
  vdc:                 switch
  routing-context vrf: default
```

write erase

To erase configurations in persistent memory areas, use the **write erase** command.

write erase [**boot** | **debug**]

Syntax Description

boot	(Optional) Erases only the boot variable and mgmt0 interface configuration.
debug	(Optional) Erases only the debug configuration.

Defaults

Erases all configuration in persistent memory except for the boot variable, mgmt0 interface, and debug configuration.

Command Modes

Any command mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **write erase** command to erase the startup configuration in the persistent memory when information is corrupted or otherwise unusable. Erasing the startup configuration returns the device to its initial state, except for the boot variable, mgmt0 interface, and debug configurations. You have to explicitly erase those configurations with the **boot** and **debug** options.

This command does not require a license.

Examples

This example shows how to erase the startup configuration:

```
switch(config-if)# write erase
Warning: This command will erase the startup-configuration.
Do you wish to proceed anyway? (y/n)  [n] y
```

This example shows how to erase the boot variable and mgmt0 interface configuration in the persistent memory:

```
switch(config-if)# write erase boot
```

This example shows how to erase the debug configuration in the persistent memory:

```
switch(config-if)# write erase debug
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config	Displays the startup configuration.