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Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference

Cisco NX-OS Releases 4.x, 5.x

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Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference

CONTENTS

Preface

This preface describes the audience, organization, and conventions of the *Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference*. It also provides information on how to obtain related documentation.

This preface includes the following sections:

Audience

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

Supported Switches

This section includes the following topics:

Cisco Nexus 5000 Platform Switches

Table 1 lists the Cisco switches supported in the Cisco Nexus 5000 Platform.

Note For more information on these switches, see the *Cisco Nexus 5500 Platform and Cisco Nexus 5000 Platform Hardware Installation Guide* available at the following URL: http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

Table 1 Supported Cisco Nexus 5000 Platform Switches

Switch	Description
Cisco Nexus 5010 Switch	The Cisco Nexus 5010 is a 1 rack unit (RU) switch. It delivers 500 Gbps of wire-speed switching capacity designed for traditional, virtualized, unified, and high-performance computing (HPC) environments.
Cisco Nexus 5020 Switch	The Cisco Nexus 5020 is a 2 rack unit (RU) switch. It delivers 1+ Tbps of wire-speed switching capacity designed for traditional, virtualized, unified, and HPC environments.

Note The Cisco Nexus 5000 Platform switches only supports Internet Group Management Protocol (IGMP) snooping.
IGMP, Protocol Independent Multicast (PIM), and Multicast Source Discovery Protocol (MSDP) are not supported on the Cisco Nexus 5000 Platform switches.

Cisco Nexus 5500 Platform Switches

Table 2 lists the Cisco switches supported in the Cisco Nexus 5500 Platform.

Note For more information on these switches, see the *Cisco Nexus 5500 Platform and Cisco Nexus 5000 Platform Hardware Installation Guide* available at the following URL:
http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

Table 2 Supported Cisco Nexus 5500 Platform Switches

Switch	Description
Cisco Nexus 5548P Switch	The Cisco Nexus 5548P switch is the first switch in the Cisco Nexus 5500 Platform. It is a one-rack-unit (1 RU), 10-Gigabit Ethernet and Fibre Channel over Ethernet (FCoE) switch that offers up to 960-Gbps throughput and up to 48 ports.
Cisco Nexus 5596P Switch	The Cisco Nexus 5596P switch is a top-of-rack, 10-Gigabit Ethernet and FCoE switch offering up to 1920-Gigabit throughput and up to 96 ports.

Organization

This document is organized as follows:

Chapter Title	Description
New and Changed Information	Describes the new and changed information for the new Cisco NX-OS software releases.
B Commands	Describes the Cisco NX-OS basic system commands that begin with B.
C Commands	Describes the Cisco NX-OS basic system commands that begin with C.
D Commands	Describes the Cisco NX-OS basic system commands that begin with D.
E Commands	Describes the Cisco NX-OS basic system commands that begin with E.
F Commands	Describes the Cisco NX-OS basic system commands that begin with F.
G Commands	Describes the Cisco NX-OS basic system commands that begin with G.
H Commands	Describes the Cisco NX-OS basic system commands that begin with H.
I Commands	Describes the Cisco NX-OS basic system commands that begin with I.
L Commands	Describes the Cisco NX-OS basic system commands that begin with L.
M Commands	Describes the Cisco NX-OS basic system commands that begin with M.
P Commands	Describes the Cisco NX-OS basic system commands that begin with P.
R Commands	Describes the Cisco NX-OS basic system commands that begin with R.
S Commands	Describes the Cisco NX-OS basic system commands that begin with S.
Show Commands	Describes the Cisco NX-OS basic system **show** commands.
T Commands	Describes the Cisco NX-OS basic system commands that begin with T.
U Commands	Describes the Cisco NX-OS basic system commands that begin with U.
W Commands	Describes the Cisco NX-OS basic system commands that begin with W.

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}	Alternative keywords are grouped in braces and separated by vertical bars.
[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.

Related Documentation

Documentation for Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extender is available at the following URL:

http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

The following are related Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Fabric Extender documents:

Release Notes

Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Release Notes

Cisco Nexus 5000 Series Switch Release Notes

Configuration Guides

Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release 5.0(2)N1(1)

Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release 4.2(1)N1(1) and Release 4.2(1)N2(1)

Cisco Nexus 5000 Series NX-OS Fibre Channel over Ethernet Configuration Guide

Cisco Nexus 5000 Series NX-OS Layer 2 Switching Configuration Guide

Cisco Nexus 5000 Series NX-OS Multicast Routing Configuration Guide

Cisco Nexus 5000 Series NX-OS Quality of Service Configuration Guide

Cisco Nexus 5000 Series NX-OS SAN Switching Configuration Guide

Cisco Nexus 5000 Series NX-OS Security Configuration Guide

Cisco Nexus 5000 Series NX-OS System Management Configuration Guide

Cisco Nexus 5000 Series NX-OS Unicast Routing Configuration Guide

Cisco Nexus 5000 Series Switch NX-OS Software Configuration Guide

Cisco Nexus 5000 Series Fabric Manager Configuration Guide, Release 3.4(1a)

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

Cisco Nexus 2000 Series Fabric Extender Software Configuration Guide

Maintain and Operate Guides

Cisco Nexus 5000 Series NX-OS Operations Guide

Installation and Upgrade Guides

Cisco Nexus 5000 Series and Cisco Nexus 5500 Platform Hardware Installation Guide

Cisco Nexus 2000 Series Hardware Installation Guide

Cisco Nexus 5000 Series NX-OS Software Upgrade and Downgrade Guide, Release 4.2(1)N1(1)

Regulatory Compliance and Safety Information for the Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extenders

Licensing Guide

Cisco NX-OS Licensing Guide

Command References

Cisco Nexus 5000 Series NX-OS FabricPath Command Reference

Cisco Nexus 5000 Series NX-OS Fabric Extender Command Reference

Cisco Nexus 5000 Series NX-OS Fibre Channel Command Reference

Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference

Cisco Nexus 5000 Series NX-OS Layer 2 Interfaces Command Reference

Cisco Nexus 5000 Series NX-OS Multicast Routing Command Reference

Cisco Nexus 5000 Series NX-OS QoS Command Reference

Cisco Nexus 5000 Series NX-OS Security Command Reference

Cisco Nexus 5000 Series NX-OS System Management Command Reference

Cisco Nexus 5000 Series NX-OS TrustSec Command Reference

Cisco Nexus 5000 Series NX-OS Unicast Routing Command Reference

Cisco Nexus 5000 Series NX-OS vPC Command Reference

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Technical References

Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Fabric Extender MIBs Reference

Error and System Messages

Cisco NX-OS System Messages Reference

Troubleshooting Guide

Cisco Nexus 5000 Troubleshooting Guide

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

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

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

New and Changed Information

This chapter provides release-specific information for each new and changed feature in the *Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference*. The latest version of this document is available at the following Cisco website:

http://www.cisco.com/en/US/products/ps9670/prod_command_reference_list.html

To check for additional information about this Cisco NX-OS Release, see the *Cisco Nexus 5000 Series Switch Release Notes* available at the following Cisco website:

http://www.cisco.com/en/US/products/ps9670/prod_release_notes_list.html

New and Changed Information for Cisco NX-OS Releases

This section includes the following topics:

New and Changed Information for Cisco NX-OS Release 5.2(1)N1(1)

There are no new or changed features for this release.

New and Changed Information for Cisco NX-OS Release 5.1(3)N1(1)

Table 1 summarizes the new and changed features for Cisco NX-OS Release 5.1(3)N1(1) and tells you where they are documented.

Table 1 New and Changed Information for Release 5.1(3)N1(1)

Feature	Description	Where Documented
ASIC version of Layer 3 daughter card and GEM card	The following command was updated to display the ASIC version of a Layer 3 daughter card and GEM card: • **show module**	show module
Clock protocol	This feature was introduced to synchronize the clock protocol. The following command was added: • **clock protocol**	clock protocol

New and Changed Information for Cisco NX-OS Release 5.0(3)N2(1)

There are no new and changed features for Cisco NX-OS Release 5.0(3)N2(1).

New and Changed Information for Cisco NX-OS Release 5.0(3)N1(1)

Table 2 summarizes the new and changed features for Cisco NX-OS Release 5.0(3)N1(1) and tells you where they are documented.

Table 2 New and Changed Information for Release 5.0(3)N1(1)

Feature	Description	Where Documented
System resources	Added the **show system resources** command.	show system resources

New and Changed Information for Cisco NX-OS Release 5.0(2)N2(1)

There are no new and changed features for Cisco NX-OS Release 5.0(2)N2(1).

New and Changed Information for Cisco NX-OS Release 5.0(2)N1(1)

There are no new and changed features for Cisco NX-OS Release 5.0(2)N1(1).

B Commands

This chapter describes the basic Cisco NX-OS system commands that begin with B.

banner motd

To configure the message-of-the-day (MOTD) banner that displays when the user logs in to a Cisco Nexus 5000 Series switch, use the **banner motd** command. To revert to the default, use the **no** form of this command.

banner motd *delimiter message delimiter*

no banner motd

Syntax Description

delimiter	Delimiter character that 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. White space characters will not work.
message	Message text. The text is alphanumeric, case sensitive, and can contain special characters. It cannot contain the delimiter character you have chosen. The text has a maximum length of 80 characters and a maximum of 40 lines.

Command Default

"Nexus 5000 Switch" is the default MOTD string.

Command Modes

Interface configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	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.

Examples

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

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

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

```
switch(config)# banner motd #Welcome Authorized Users Unauthorized access prohibited!#
```

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

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

Related Commands

Command	Description
show banner motd	Displays the MOTD banner.

boot

To configure the boot variable for the Cisco Nexus 5000 Series kickstart or system software image, use the **boot** command. To clear the boot variable, use the **no** form of this command.

boot {**kickstart** | **system**} [**bootflash:**] [*//server/*] [*directory*] *filename*

no boot {**kickstart** | **system**}

Syntax Description

kickstart	Configures the kickstart image.
system	Configures the system image.
bootflash:	(Optional) Specifies the name of the bootflash file system.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the kickstart or system image file. The filename is case sensitive.

Note There can be no spaces in the *bootflash://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The Cisco NX-OS software uses the boot variable for loading images when booting up. You must copy the correct image to the switch before you reload.

Examples

This example shows how to configure the system boot variable:

```
switch(config)# boot system bootflash:n5000.bin
```

This example shows how to configure the kickstart boot variable:

```
switch(config)# boot kickstart bootflash:n5000-kickstart.bin
```

This example shows how to clear the system boot variable:

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

This example shows how to clear the kickstart boot variable:

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

Related Commands

Command	Description
copy	Copies files.
show boot	Displays boot variable configuration information.

C Commands

This chapter describes the basic Cisco NX-OS system commands that begin with C.

cd

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

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

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash** or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	Name of the destination directory. The directory name is case sensitive.

Note There can be no spaces in the *filesystem://server/directory* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

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 volatile:
```

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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).

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 cores

To clear the core files, use the **clear cores** command.

clear cores

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use the **show system cores** command to display information about the core files.

Examples

This example shows how to clear the core file:

```
switch# clear cores
```

Related Commands

Command	Description
show system cores	Displays the core filename.
system cores	Configures the core filename.

clear debug-logfile

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

clear debug-logfile *filename*

Syntax Description

filename	Name of the debug log file to clear.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to clear the debug log file:

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

Related Commands

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

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

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.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

Examples This example shows how to clear a specific license:

```
switch# clear license fm.lic
```

Related Commands	Command	Description
	show license	Displays license information.

clear user

To log out a particular user, use the **clear user** command.

clear user *username*

Syntax Description		
	username	Name of the user to be logged out.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	4.0(0)N1(1a)	This command was introduced.

Examples This example shows how to log out a specific user:

```
switch# clear user admin
```

Related Commands	Command	Description
	show users	Displays the users currently logged on the switch.

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*

no cli 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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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 a predefined variable, TIMESTAMP, that you can use to insert the time of day. You cannot change or remove the TIMESTAMP CLI variable.

You cannot change the definition of a CLI variable. You must remove the variable and then create it again with the new definition.

Examples

This example shows how to define a CLI variable:

```
switch# cli var name testvar interface ethernet 1/3
```

This example shows how to reference a CLI variable:

```
switch# show $(testvar)
```

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 testvar
```

Related Commands

Command	Description
run-script	Runs command scripts.
show cli variables	Displays the CLI variables.

clock protocol

To set the synchronization protocol for the clock to a protocol, use the **clock protocol** command. To remove the clock protocol, use the **no** form of this command.

clock protocol {**none** | **ntp**}

no clock protocol {**none** | **ntp**}

Syntax Description

none	Specifies that the clock can be set manually.
ntp	Specifies that the clock be set to the Network Time Protocol (NTP).

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to set the synchronization protocol for the clock to NTP:

```
switch# configure terminal
switch(config)# clock protocol ntp
switch(config)#
```

Related Commands

Command	Description
show running-config	Displays the running system configuration information.

clock set

To manually set the clock on a Cisco Nexus 5000 Series switch, use the **clock set** command.

clock set *time day month year*

Syntax Description

time	Time of day. The format is *HH*:*MM*:*SS*.
day	Day of the month. The range is from 1 to 31.
month	Month of the year. The values are **January**, **February**, **March**, **April**, **May**, **June**, **July**, **August**, **September**, **October**, **November**, and **December**.
year	Year. The range is from 2000 to 2030.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use this command when you cannot synchronize the switch with an outside clock source, such as an NTP server.

Examples

This example shows how to manually configure the clock:

```
switch# clock set 12:00:00 04 July 2008
```

Related Commands

Command	Description
show clock	Displays the clock time.

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	Time zone string. The time zone string is a three-character string.
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.

Command Default

None

Command Modes

Global configuration mode
Interface configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

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

```
switch(config)# clock summer-time PDT 1 Sunday March 02:00 5 Sunday November 02:00 60
```

This example shows how to revert to the default offset for summer-time:

```
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. The name is a 3-character string for the time zone acronym (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.

Command Default

None

Command Modes

Global configuration mode
Interface configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use this command to offset the device clock from UTC.

Examples

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

```
switch(config)# clock timezone PST -8 0
```

This example shows how to revert the time zone offset to the default:

```
switch(config)# no clock timezone
```

Related Commands

Command	Description
show clock	Displays the clock time.

configure session

To create or modify a configuration session, use the **configure session** command.

configure session *name*

Syntax Description

name	Name of the session. The name is a case-sensitive, alphanumeric string up to 63 characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(1a)N1(1)	This command was introduced.

Examples

This example shows how to create a configuration session:

```
switch# configure session MySession
switch(config-s)#
```

Related Commands

Command	Description
show configuration session	Displays information about the configuration sessions.

configure terminal

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

configure terminal

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use this command to enter configuration mode. Commands in this mode are written to the running configuration file as soon as you enter them (using the **Enter** key/**Carriage Return**).

After you enter the **configure terminal** command, the system prompt changes from switch# to switch(config)#, indicating that the switch is in configuration mode. To leave configuration mode and return to EXEC mode, type **end** or press **Ctrl-Z**.

To view the changes to the configuration that you have made, use the **show running-config** command.

Examples

This example shows how to enter configuration mode:

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

Related Commands

Command	Description
copy running-config startup-config	Saves the running configuration as the startup configuration file.
end	Ends your configuration session by exiting to EXEC mode.
exit (global)	Exits from the current configuration mode to the next highest configuration mode.
show running-config	Displays the current running configuration.

copy

To copy any file from a source to a destination, use the **copy** command.

copy *source-url destination-url*

Syntax Description

source-url	Location 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 more information, 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 more information, see the "Usage Guidelines" section.

Command Default

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

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
5.0(2)N2(1)	Support for this command was introduced on external Universal Serial Bus (USB) Flash memory devices.

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 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.

Format of Source and Destination URL

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 (*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.

Table 1 URL Prefix Keywords for Local Writable Storage File Systems

Keyword	Source or Destination
bootflash:[*//server/*]	Source or destination URL for boot flash memory. The *server* argument value is **module-1**, **sup-1**, **sup-active**, or **sup-local**.
volatile:[*//server/*]	Source or destination URL of the default internal file system. Any files or directories stored in this file system will be erased when the switch reboots. The *server* argument value is **module-1**, **sup-1**, **sup-active**, or **sup-local**.

Table 2 URL Prefix Keywords for Remote File Systems

Keyword	Source or Destination
ftp:	Source or destination URL for a 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 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.
modflash:	External memory for mod files. You can copy mod files from modflash file system.
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.

Table 3 URL Prefix Keywords for Special File Systems (continued)

Keyword	Source or Destination
usb1:	Source or destination URL for the external Universal Serial Bus (USB) Flash memory devices. You can copy the kickstart and system image to bootflash. **Note** This is applicable only to the Cisco Nexus 5500 Series switches.
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.

This section contains usage guidelines for the following topics:

- Copying Files from a Server to Bootflash Memory, page 24
- Copying a Configuration File from a Server to the Running Configuration, page 24
- Copying a Configuration File from a Server to the Startup Configuration, page 24
- Copying the Running or Startup Configuration on a Server, page 24

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 copy as a backup.

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-scripts/file2
```

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

```
switch# copy file1 bootflash:
```

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

```
switch# copy file1 bootflash://sup-1/file1.bak
```

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

```
switch# copy scp://192.168.1.1/image-file.bin bootflash:image-file.bin
```

This example shows how to copy the kickstart and system image to bootflash:

```
switch# copy usb1: bootflash:
```

Related Commands

Command	Description
cd	Changes the current working directory.
delete	Delete a file or directory.
dir	Displays the directory contents.
move	Moves a file.
pwd	Displays the name of the current working directory.

copy running-config startup-config

To save the running configuration to the startup configuration file so that all current configuration details are available after a reboot, use the **copy running-config startup-config** command.

copy running-config startup-config

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

To view the changes to the configuration that you have made, use the **show startup-config** command.

Note Once you enter the **copy running-config startup-config** command, the running and the startup copies of the configuration are identical.

Examples

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

```
switch# copy running-config startup-config
```

Related Commands

Command	Description
show running-config	Displays the currently running configuration.
show startup-config	Displays the startup configuration file.

D Commands

This chapter describes the basic Cisco NX-OS system commands that begin with D.

databits

To configure the number of data bits in a character for the terminal 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.

Command Default

8 bits

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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 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 console port configuration.

debug logfile

To direct the output of the **debug** commands to a specified file, use the **debug logfile** command. To revert to the default, use the **no** form of this command.

debug logfile *filename* [**size** *bytes*]

no debug logfile *filename* [**size** *bytes*]

Syntax Description

filename	Name of the file for **debug** command output. The filename is alphanumeric, case sensitive, and has a maximum of 64 characters.
size *bytes*	(Optional) Specifies the size of the log file in bytes. The range is from 4096 to 4194304.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The Cisco NX-OS software creates the logfile in the log: file system root directory. Use the **dir log:** command to display the log files.

Examples

This example shows how to specify a debug log file:

```
switch# debug logfile debug_log
```

This example shows how to revert to the default debug log file:

```
switch# no debug logfile debug_log
```

Related Commands

Command	Description
dir	Displays the contents of a directory.
show debug logfile	Displays the debug logfile contents.

debug logging

To enable **debug** command output logging, use the **debug logging** command. To disable debug logging, use the **no** form of this command.

debug logging

no debug logging

Syntax Description

This command has no arguments or keywords.

Command Default

Disabled

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to enable the output logging for the **debug** command:

```
switch# debug logging
```

This example shows how to disable the output logging for the **debug** command:

```
switch# no debug logging
```

Related Commands

Command	Description
debug logfile	Configures the log file for the **debug** command output.

delete

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

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

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **debug**, **log**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file to delete. The filename is case sensitive.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

The **delete** command will delete a directory and its contents. Exercise caution when using this command to delete directories.

Examples

This example shows how to delete a file:

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

This example shows how to delete a directory:

```
switch# delete my_dir
This is a directory. Do you want to continue (y/n)? [y] y
```

Related Commands

Command	Description
dir	Displays the contents of a directory.
save	Saves the configuration session to a file.

dir

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

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

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **debug**, **log**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.

Note There can be no spaces in the *filesystem://server/directory* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

Displays the contents of the current working directory.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The **dir** command displays a listing of the files in the specified directory. For each file, it lists the size of the file in bytes, the last modified time of the file, and the filename of the file. This command then displays the usage statistics for the file system.

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

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

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.
delete	Deletes a file or directory.
pwd	Displays the name of the current working directory.
rmdir	Deletes a directory.

E Commands

This chapter describes the basic Cisco NX-OS system commands that begin with E.

echo

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

echo [*text*]

Syntax Description

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.

Command Default

Blank line

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

You can use this command in a command script to display status information or prompts while the script is running.

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).
```

Related Commands

Command	Description
run-script	Runs command scripts.
show cli variables	Displays the CLI variables.

end

To end the current configuration session and return to EXEC mode, use the **end** command.

end

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

This command returns you to EXEC mode regardless of which configuration mode you are in. Use this command when you are done configuring the system and you want to return to EXEC mode to perform verification steps.

Examples

This example shows how the **end** command is used to exit from interface configuration mode and return to EXEC mode. A **show** command is used to verify the configuration.

```
switch# configure terminal
switch(config)# interface ethernet 1/1
switch(config-if)# switchport host
switch(config-if)# end
switch# show interface ethernet 1/1
```

Related Commands

Command	Description
exit (EXEC)	Terminates the active terminal session by logging off the switch.
exit (global)	Exits from the current configuration 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.

Command Default

Timeout is disabled.

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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

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

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 virtual terminal:

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

Related Commands

Command	Description
line console	Enters the console terminal configuration mode.
line vty	Enters the virtual terminal configuration mode.
show running-config	Displays the running configuration.

exit (EXEC)

To close an active terminal session by logging off the switch, use the **exit** command.

exit

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how the **exit (global)** command is used to move from configuration mode to EXEC mode and the **exit** (EXEC) command is used to log off (exit the active session):

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

Related Commands

Command	Description
end	Ends your configuration session by exiting to EXEC mode.
exit (global)	Exits from the current configuration mode to the next highest configuration mode.

exit (global)

To exit any configuration mode to the next highest mode in the CLI mode hierarchy, use the **exit** command in any configuration mode.

exit

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

All configuration modes

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use the **exit** command in configuration mode to return to EXEC mode. Use the **exit** command in interface, VLAN, or zone configuration mode to return to configuration mode. At the highest level, EXEC mode, the **exit** command will exit the EXEC mode and disconnect from the switch (see the description of the **exit (EXEC)** command for details).

Examples

This example shows how to exit from the interface configuration mode and to return to the configuration mode:

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

Related Commands

Command	Description
end	Ends your configuration session by exiting to privileged EXEC mode.
exit (EXEC)	Terminates the active terminal session by logging off the switch.

F Commands

This chapter describes the basic Cisco NX-OS system commands that begin with F.

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 case sensitive.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

This example shows how to display filenames beginning with “n5000”:

```
switch# find n5000
```

Related Commands

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

format

To format the bootflash device, which erases its contents and restores it to its factory-shipped state, use the **format** command.

format bootflash:

Syntax Description

bootflash:	Specifies the name of the bootflash file system.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to format the bootflash device:

```
switch# format bootflash:
```

Related Commands

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

G Commands

This chapter describes the basic Cisco NX-OS system commands that begin with G.

gunzip

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

gunzip [*filesystem*:] [*//server/*] [*directory*] *filename*

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file to uncompress. The filename is case sensitive.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The compressed filename must have the .gz extension.

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

Examples

This example shows how to uncompress a compressed file:

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

Related Commands

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

gzip

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

gzip [*filesystem*:] [*//server/*] [*directory*] *filename*

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file to compress. The filename is case sensitive.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

After you run this command, the named file is replaced with a compressed file that has the .gz extension added to its filename.

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

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.

H Commands

This chapter describes the basic Cisco NX-OS system commands that begin with H.

hostname

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

hostname *name*

no hostname

Syntax Description

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

Command Default

"switch" is the default hostname.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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.

Examples

This example shows how to configure the hostname for a Cisco Nexus 5000 Series switch:

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

This example shows how to revert to the default hostname:

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

Related Commands

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

I Commands

This chapter describes the basic Cisco NX-OS system commands that begin with I.

install all

To install the kickstart and system images on a Cisco Nexus 5000 Series switch, use the **install all** command.

install all [**kickstart** *kickstart-url*] [**system** *system-url*]

Syntax Description

kickstart	(Optional) Specifies the kickstart image file.
kickstart-url	Full address of the kickstart image file. The name is case sensitive.
system	(Optional) Specifies the system image file.
system-url	Full address of the system image file. The name is case sensitive.

Command Default

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

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
5.0(3)N1(1)	Support for Layer 3 interfaces was added.

Usage Guidelines

The format of the kickstart and system URLs varies according to the file system, directory, and file location.

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. For remote file systems, if it is not otherwise specified, the path is the default for the user on the remote server.

Table 1 URL Prefix Keywords for Local Writable Storage File Systems

Keyword	Source or Destination
bootflash:[*//server/*]	Source URL for boot flash memory. The *server* argument value is **module-1**, **sup-1**, **sup-active**, or **sup-local**.
modflash:[*//server/*]	Source URL of an external flash file system. The *server* argument value is **module-1**, **sup-1**, **sup-active**, or **sup-local**.
volatile:[*//server/*]	Source URL of the default internal file system. Any files or directories stored in this file system are erased when the switch reboots. The *server* argument value is **module-1**, **sup-1**, **sup-active**, or **sup-local**.

Table 2 URL Prefix Keywords for Remote File Systems

Keyword	Source or Destination
ftp:	Source URL for a FTP network server. The syntax for this alias is as follows: **ftp:**[*//server*][*/path*]*/filename*
scp:	Source URL for a network server that supports Secure Shell (SSH) and uses the secure copy protocol (scp). The syntax is as follows: **scp:**[*//*[*username@*]*server*][*/path*]*/filename*
sftp:	Source URL for an SSH FTP (SFTP) network server. The syntax is as follows: **sftp:**[*//*[*username@*]*server*][*/path*]*/filename*
tftp:	Source URL for a TFTP network server. The syntax is as follows: **tftp:**[*//server*[*:port*]][*/path*]*/filename*

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

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

The **install all** command upgrades the switch software and also upgrades the Fabric Extender software of all attached chassis. The Fabric Extender remains online passing traffic while the software is copied. Once the software images have successfully been installed, the parent switch and the Fabric Extender chassis are rebooted automatically to maintain the software version compatibility between the parent switch and the Fabric Extender.

You can use the **install all** command to downgrade the Cisco NX-OS software on the switch. To determine if the downgrade software is compatible with the current configuration on the switch, use the **show incompatibility system** command and resolve any configuration incompatibilities.

In Cisco NX-OS Release 5.0(3)N1(1), a software upgrade on the Cisco Nexus 5548 switch and the Cisco Nexus 5596 switch that has the Layer 3 features enabled is disruptive. You must reload the switch and the Cisco Nexus 2000 Series Fabric Extender.

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@192.168.1.1/nx-os_kick.bin system
bootflash:scp://adminuser@192.168.1.1/nx-os_sys.bin
```

Related Commands

Command	Description
reload	Reloads the device with new Cisco NX-OS software.
show incompatibility system	Displays configuration incompatibilities between Cisco NX-OS system software images.
show install all	Displays information related to the install operation.
show version	Displays information about the software version.

install license

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

install license [*filesystem*:] [*//server/*] [*directory*] *src-filename* [*target-filename*]

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash** or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
src-filename	Name of the source license file.
target-filename	(Optional) Name of the target license file.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

All licenses for the Cisco Nexus 5000 Series switches are factory installed. Manual installation is not required.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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 URL is used. This command also verifies the license file before installing it.

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.
show license host-id	Displays the serial number of the chassis to use for licensing.
show license usage	Displays license usage information.

L Commands

This chapter describes the basic Cisco NX-OS system commands that begin with L.

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.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

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
databits	Configures the number of data bits in a character for a port.
exec-timeout	Configures the inactive terminal timeout for a port.
modem	Configures the modem settings for a port.
parity	Configures the parity settings for a port.
show line	Displays information about the console port configuration.
speed	Configures the transmit and receive speed for a port.
stopbits	Configures the stop bits for a port.

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.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to enter console port configuration mode:

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

Related Commands

Command	Description
access-class	Restricts incoming and outgoing connections in VTY configuration mode.
exec-timeout	Configures the inactive terminal timeout for a port.
session-limit	Configures the maximum number of the concurrent virtual terminal sessions.
show line	Displays information about the console port configuration.

M Commands

This chapter describes the basic Cisco NX-OS system commands that begin with M.

modem in

To enable the modem connection on the 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.

Command Default

Timeout is disabled.

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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 console	Enters console port configuration mode.
show line	Displays information about the console port configuration.

modem init-string

To download the initialization string to a modem connected to the 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.

Command Default

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

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

You can configure the console port 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.

Examples

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 console port:

```
switch# configure terminal
```

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

This example shows how to remove the initialization string to 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 console	Enters console port configuration mode.
modem set-string	Configures the user-input initialization string for a modem.
show line	Displays information about the console port configuration.

modem set-string user-input

To configure the user-input initialization string to download to a modem connected to the 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.

Command Default

None

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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 console port:

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

Related Commands

Command	Description
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 console port configuration.

move

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

move {[*filesystem*:] [*//server/*] [*directory*] *source-filename*} [*filesystem*:] [*//server/*] [*directory*] [*destination-filename*]

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **debug**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
source-filename	Name of the file to move. The filename is case sensitive.
destination-filename	(Optional) Name of the destination file. The filename is alphanumeric, case sensitive, and has a maximum of 64 characters.

Command Default

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

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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.

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 volatile:
```

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

```
switch# move file1 bootflash://sup-1/file1.bak
```

Related Commands

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

P Commands

This chapter describes the basic Cisco NX-OS system commands that begin with P.

parity

To configure the parity for the 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.

Command Default

The **none** keyword is the default.

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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 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 console port configuration.

ping

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

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

Syntax Description

dest-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. The default 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-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) to use. The name is case sensitive and can be a maximum of 32 characters.
default	(Optional) Specifies the default VRF.
management	(Optional) Specifies the management VRF.

Command Default

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

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to determine connectivity to another network device:

```
switch# ping 192.168.2.246
```

Related Commands

Command	Description
ping6	Determines connectivity to another device using IPv6 addressing.
traceroute	Displays the routes that packets take when traveling to an IP address.

ping6

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

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

Syntax Description

dest-address	Destination IPv6 address. The format is *A*:*B*::*C*:*D*.
hostname	Hostname of 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, EtherChannel, 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 *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) to use. The name is case sensitive and can be a maximum of 32 alphanumeric characters.
default	(Optional) Specifies the default VRF.
management	(Optional) Specifies the management VRF.

Command Default

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

Command Modes

EXEC mode

Command History

Release	Modification
4.0(1a)N1(1)	This command was introduced.

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.
traceroute6	Displays the routes that packets take when traveling to an IPv6 address.

R Commands

This chapter describes the basic Cisco NX-OS system commands that begin with R.

reload

To reload the switch and all attached Fabric Extender chassis or a specific Fabric Extender, use the **reload** command.

reload {**all** | **fex** *chassis_ID*}

Syntax Description

all	Reboots the entire Cisco Nexus 5000 Series switch and all attached Fabric Extender chassis.
fex *chassis_ID*	Reboots a specific Fabric Extender chassis. The chassis ID is from 100 to 199.

Command Default

Reloads the Cisco Nexus 5000 Series switch.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.0(1a)N2(1)	Support for the Cisco Nexus 2000 Series Fabric Extender was added.

Usage Guidelines

The **reload** command disrupts traffic on the switch and Fabric Extender.

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.

Examples

This example shows how to reload the Cisco Nexus 5000 Series switch:

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

This example shows how to reload a Fabric Extender:

```
switch# reload fex 101
WARNING: This command will reboot FEX 101
Do you want to continue? (y/n) [n] y
```

Related Commands

Command	Description
copy running-config startup-config	Copies the current running configuration to the startup configuration.
show version	Displays information about the software version.

rmdir

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

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

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	Name of a directory to delete. The directory name is case sensitive.

Note There can be no spaces in the *filesystem://server/directory* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to remove a directory:

```
switch# rmdir my_files
```

Related Commands

Command	Description
cd	Changes the current working directory.
delete	Deletes a file or 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.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

You must create the command file on a remote device and download it to the Cisco Nexus 5000 Series switch using the **copy** command.

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.
echo	Displays a test string on the terminal.
pwd	Displays the name of the current working directory.
sleep	Causes the CLI to pause for a defined number of seconds.

S Commands

This chapter describes the basic Cisco NX-OS system commands that begin with S.

save

To save the current configuration session to a file, use the **save** command.

save *location*

Syntax Description

location	Location of the file. The location can be in bootflash or volatile. The file name can be any alphanumeric string up to 63 characters.

Command Default

None

Command Modes

Session configuration mode

Command History

Release	Modification
4.0(1a)N1(1)	This command was introduced.

Examples

This example shows how to save a configuration session to a file in bootflash:

```
switch# configure session MySession
switch(config-s)# save bootflash:sessions/MySession
```

Related Commands

Command	Description
configure session	Creates or modifies a configuration session.
delete	Deletes a file from a location.

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.

Command Default

Sends a message to all active user sessions.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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

```
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/0 You must log off the switch.
```

Related Commands

Command	Description
show users	Displays the active user sessions on the switch.

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.

Command Default

32 sessions

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

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
line vty	Enters the virtual terminal configuration mode.
show running-config	Displays the running configuration.

setup

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

setup [**ficon**]

Syntax Description

ficon	(Optional) Runs the basic ficon setup command facility.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The setup script uses the factory-default values, not the values that you have configured. You can exit the dialog at any point by pressing **Ctrl-C**.

Examples

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

```
switch# setup
```

Related Commands

Command	Description
show running-config	Displays the running configuration.

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

You can use this command in command scripts to delay the execution of the script.

Examples

This example shows how to cause the CLI to pause for 5 seconds before displaying the prompt:

```
switch# sleep 5
```

Related Commands

Command	Description
run-script	Runs command scripts.

speed

To configure the transmit and receive speed for the console port, use the **speed** command. To revert to the default, use the **no** form of this command.

speed *speed*

no speed *speed*

Syntax Description

speed	Speed in bits per second. Valid speeds are 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, or 115200.

Command Default

The default console port speed is 9600 bits per second.

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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

```
switch# configure terminal
switch(config)# line console
switch(config-console)# speed 57600
```

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

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no speed 57600
```

Related Commands

Command	Description
line console	Enters the console terminal configuration mode.
show running-config	Displays the running configuration.

stopbits

To configure the stop bits for the 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.

Command Default

1 stop bit

Command Modes

Terminal line configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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 console port:

```
switch# configure terminal
switch(config)# line console
switch(config-console)# no stopbits 2
```

Related Commands

Command	Description
line console	Enters the console terminal configuration mode.
show running-config	Displays the running 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	Hostname for the switch. The name is alphanumeric, case sensitive, can contain special characters, and can have a maximum of 32 characters.

Command Default

"switch" is the default hostname.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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.

Examples

This example shows how to configure the hostname for a Cisco Nexus 5000 Series switch:

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

This example shows how to revert to the default hostname:

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

Related Commands

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

system cores

To configure the destination for the system core, use the **system cores** command. To revert to the default, use the **no** form of this command.

system cores tftp:*tftp_URL* [**vrf management**]

no system cores

Syntax Description

tftp:	Specifies a TFTP server.
tftp_URL	URL for the destination file system and file. Use the following format: [//*server*[:*port*]][/*path*/]*filename*
vrf management	(Optional) Specifies to use the management virtual routing and forwarding (VRF).

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to configure a core file:

```
switch# configure terminal
switch(config)# system cores tftp://serverA:69/core_file
```

This example shows how to disable system core logging:

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

Related Commands

Command	Description
show system cores	Displays the core filename.

system startup-config unlock

To unlock the startup configuration file, use the **system startup-config unlock** command.

system startup-config unlock *process-id*

Syntax Description

process-id	Identifier of the process that has locked the startup-configuration file.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use the **show system internal sysmgr startup-config locks** command to display the locks on the startup configuration file.

Examples

This example shows how to unlock the startup-configuration file:

```
switch# system startup-config unlock 10
```

Related Commands

Command	Description
show startup-config	Displays the startup configuration information.

Show Commands

This chapter describes the basic Cisco NX-OS system **show** commands.

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the MOTD banner:

```
switch# show banner motd
Unauthorized access is 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 [**variables**]

Syntax Description

variables	(Optional) Displays a list of boot variables.

Command Default

Displays all configured boot variables.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display all configured boot variables:

```
switch# show boot
```

This example shows how to display the list of boot variable names:

```
switch# show boot variables
```

Related Commands

Command	Description
boot	Configures the boot variable for the kickstart or 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.

Command Default

Displays all configured command alias variables.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display all configured command aliases:

```
switch# show cli alias
```

This example shows how to display a specific command alias:

```
switch# show cli alias name ethint
```

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) Last number of lines from the end of the command history.
unformatted	(Optional) Displays the commands without line numbers or time stamps.

Command Default

Displays the entire formatted history.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

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

```
switch# show cli history
```

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

```
switch# show cli history 10
```

This example shows how to display unformatted command history:

```
switch# show cli history unformatted
```

Related Commands

Command	Description
clear cli history	Clears the command history.

show cli variables

To display the configuration of the command-line interface (CLI) variables, use the **show cli variables** command.

show cli variables

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the CLI variables:

```
switch# show cli variables
```

Related Commands

Command	Description
cli var name	Configures CLI variables.

show clock

To display the current date and time, use the **show clock** command.

show clock [**detail**]

Syntax Description

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

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the current clock setting:

```
switch# show clock
```

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

```
switch# show clock detail
```

Related Commands

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

show configuration session

To display information about configuration sessions, use the **show configuration session** command.

show configuration session [*session-name* | **status** | **summary**]

Syntax Description

session-name	(Optional) Configuration session name. The name can be a maximum of 64 alphanumeric characters.
status	(Optional) Displays the status of the configuration session.
summar	(Optional) Displays summary information of the active configuration sessions.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1)	This command was introduced.

Examples

This example shows how to display information about a specific configuration session:

```
switch# show configuration session mySession1
config session name mySession1
0001  ip access-list myACL
0002  permit icmp any any
0003  statistics per-entry
switch#
```

This example shows how to display the status of the active configuration session:

```
switch# show configuration session status
==============================================================================
Session Name          : mySession1
Last Action           : Validate
Last Action Status    : Success
Last Action Reason    : -NA-
Last Action Timestamp : 19:03:49 UTC Sep 06 2009
==============================================================================

switch#
```

This example shows how to display the summary information of the active configuration sessions:

```
switch# show configuration session summary
Session Manager Database:
------------------------------------------------------------------
Name                    Session Owner           Creation Time
------------------------------------------------------------------
mySession1              root                    18:09:03 UTC Sep 06 2009
```

```
Number of active configuration sessions = 1
switch#
```

Related Commands

Command	Description
configure session	Creates a configuration session.

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

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) 2002-2010, 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
switch#
```

show debug logfile

To display the contents of the debug logfile, use the **show debug logfile** command.

show debug logfile *filename*

Syntax Description

filename	Name of the debug log file.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The log files are located in the log: file system.

Examples

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

```
switch# show debug logfile dmesg
```

Related Commands

Command	Description
debug logfile	Configures the debug log file.

show environment

To display information about the hardware environment status, use the **show environment** command.

show environment [**fan** | **power** | **temperature**]

Syntax Description

fan	(Optional) Displays information about the fan environment.
power	(Optional) Displays information about the power capacity and distribution.
temperature	(Optional) Displays information about the temperature environment.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display information about the hardware environment:

```
switch# show environment


Fan:
----------------------------------------------------
Fan             Model                Hw         Status
----------------------------------------------------
Chassis-1       N5K-C5020-FAN        --         ok
Chassis-2       --                   --         absent
Chassis-3       N5K-C5020-FAN        --         ok
Chassis-4       N5K-C5020-FAN        --         ok
Chassis-5       N5K-C5020-FAN        --         ok
PS-1            N5K-PAC-1200W        --         failure
PS-2            N5K-PAC-1200W        --         ok


Temperature
-----------------------------------------------------------------------
Module   Sensor     MajorThresh   MinorThres   CurTemp     Status
                    (Celsius)     (Celsius)    (Celsius)
-----------------------------------------------------------------------
1        Outlet-1   60            50           41          ok
1        Outlet-2   60            50           44          ok
1        Outlet-3   60            50           36          ok
1        Outlet-4   60            50           39          ok
1        Intake-1   50            40           26          ok
1        Intake-2   50            40           25          ok
1        Intake-3   50            40           25          ok
1        Intake-4   50            40           25          ok
1        PS-1       60            50           20          ok
1        PS-2       60            50           27          ok
```

```
3        Outlet-1   60            50           30          ok
2        Outlet-1   60            50           32          ok


Power Supply:
Voltage: 12 Volts
--------------------------------------------------
PS  Model                Power       Power     Status
                         (Watts)     (Amp)
--------------------------------------------------
1   --                       --        --     fail/shutdown
2   N5K-PAC-1200W        1200.00    100.00     ok


Mod Model                   Power     Power       Power     Power       Status
                            Requested Requested   Allocated Allocated
                            (Watts)   (Amp)       (Watts)   (Amp)
--- -----------___--------  -------   ----------  --------- ----------  --------
--
1    N5K-C5020P-BF-SUP      625.20    52.10       625.20    52.10       powered-
up
2    N5K-M1600              54.00     4.50        54.00     4.50        powered-
up
3    N5K-M1008              9.96      0.83        9.96      0.83        powered-
up


Power Usage Summary:
--------------------
Power Supply redundancy mode:                 Redundant
Power Supply redundancy operational mode:     Non-redundant

Total Power Capacity                             1200.00 W

Power reserved for Supervisor(s)                  625.20 W
Power currently used by Modules                    63.96 W

                                                -------------
Total Power Available                             510.84 W
                                                -------------
switch#
```

This example shows how to display information about the power environment:

```
switch# show environment power


Power Supply:
Voltage: 12 Volts
--------------------------------------------------
PS  Model                Power       Power     Status
                         (Watts)     (Amp)
--------------------------------------------------
1   --                       --        --     fail/shutdown
2   N5K-PAC-1200W        1200.00    100.00     ok


Mod Model                   Power     Power       Power     Power       Status
                            Requested Requested   Allocated Allocated
                            (Watts)   (Amp)       (Watts)   (Amp)
--- -----------___--------  -------   ----------  --------- ----------  --------
--
1    N5K-C5020P-BF-SUP      625.20    52.10       625.20    52.10       powered-
up
```

```
2    N5K-M1600              54.00     4.50        54.00     4.50        powered-
up
3    N5K-M1008              9.96      0.83        9.96      0.83        powered-
up


Power Usage Summary:
--------------------
Power Supply redundancy mode:                 Redundant
Power Supply redundancy operational mode:     Non-redundant

Total Power Capacity                             1200.00 W

Power reserved for Supervisor(s)                  625.20 W
Power currently used by Modules                    63.96 W

                                                -------------
Total Power Available                             510.84 W
                                                -------------
switch#
```

show feature

To display the status of features on a switch, use the **show feature** command.

show feature

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
5.0(2)N1(1)	Support for HTTP server and privilege level was added.
5.0(2)N2(1)	Support for DHCP snooping was added.
5.0(3)N1(1)	Support for multicast and unicast routing features was added.
5.0(3)N2(1)	Support for Flex Links and Fibre Channel over Ethernet (FCoE) N-Port Virtualizer (NPV)) was added.
5.1(3)N1(1)	Support for Adapter Fabric Extender (Adapter-FEX), Virtual Machine Fabric Extender (VM-FEX), FabricPath, and Cisco TrustSec was added.

Examples

This example shows how to display the state of all features on a switch that runs Cisco NX-OS Release 5.0(2)N1(1):

```
switch# show feature
Feature Name          Instance  State
--------------------  --------  --------
cimserver             1         disabled
fabric-binding        1         disabled
fc-port-security      1         disabled
fcoe                  1         enabled
fcsp                  1         disabled
fex                   1         enabled
fport-channel-trunk   1         disabled
http-server           1         enabled
interface-vlan        1         enabled
lacp                  1         enabled
lldp                  1         enabled
npiv                  1         disabled
npv                   1         disabled
port_track            1         disabled
private-vlan          1         disabled
sshServer             1         enabled
tacacs                1         enabled
telnetServer          1         enabled
udld                  1         enabled
vpc                   1         enabled
```

```
vtp                   1         disabled
switch#
```

This example shows how to display the state of all features on a switch that runs Cisco NX-OS Release 5.0(3)N1(1):

```
switch# show feature
Feature Name          Instance  State
--------------------  --------  --------
bgp                   1         disabled
cimserver             1         disabled
dhcp                  1         enabled
eigrp                 1         disabled
eigrp                 2         disabled
eigrp                 3         disabled
eigrp                 4         disabled
fabric-binding        1         disabled
fc-port-security      1         disabled
fcoe                  1         enabled
fcsp                  1         disabled
fex                   1         enabled
fport-channel-trunk   1         disabled
hsrp_engine           1         disabled
interface-vlan        1         enabled
lacp                  1         enabled
ldap                  1         disabled
lldp                  1         enabled
msdp                  1         disabled
npiv                  1         disabled
npv                   1         disabled
ospf                  1         disabled
ospf                  2         disabled
ospf                  3         disabled
ospf                  4         disabled
pim                   1         disabled
port_track            1         disabled
private-vlan          1         enabled
privilege             1         disabled
rip                   1         disabled
rip                   2         disabled
rip                   3         disabled
rip                   4         disabled
sshServer             1         enabled
tacacs                1         enabled
telnetServer          1         enabled
udld                  1         enabled
vem                   1         disabled
vpc                   1         enabled
vrrp                  1         disabled
vtp                   1         enabled
switch#
```

This example shows how to display the state of all features on a switch that runs Cisco NX-OS Release 5.0(3)N2(1):

```
switch# show feature
Feature Name          Instance  State
--------------------  --------  --------
Flexlink              1         enabled
adapter-fex           1         disabled
bgp                   1         disabled
dhcp                  1         disabled
eigrp                 1         disabled
eigrp                 2         disabled
```

```
eigrp                 3         disabled
eigrp                 4         disabled
fcoe                  1         disabled
fcoe-npv              1         disabled
fex                   1         enabled
hsrp_engine           1         disabled
interface-vlan        1         disabled
lacp                  1         enabled
ldap                  1         disabled
lldp                  1         enabled
msdp                  1         disabled
ospf                  1         disabled
ospf                  2         disabled
ospf                  3         disabled
ospf                  4         disabled
pim                   1         disabled
poe                   1         disabled
private-vlan          1         disabled
privilege             1         disabled
rip                   1         disabled
rip                   2         disabled
rip                   3         disabled
rip                   4         disabled
sshServer             1         enabled
tacacs                1         disabled
telnetServer          1         enabled
udld                  1         disabled
vem                   1         disabled
vpc                   1         disabled
vrrp                  1         disabled
vtp                   1         disabled
switch#
```

Related Commands

Command	Description
feature	Enables or disables a feature on the switch.

show file

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

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

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file to delete. The filename is case sensitive.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

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

```
switch# show file ent-mod.lic
```

If the file that you want to display is a directory, the command will return an error message:

```
switch# show file bootflash:///routing-sw
/bin/showfile: /bootflash/routing-sw: Is a directory
```

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 hardware internal

To display information about the physical device hardware, use the **show hardware internal** command.

show hardware internal

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display information about the physical device hardware:

```
switch# show hardware internal
```

Related Commands

Command	Description
show inventory	Displays hardware inventory information.
show module	Displays information about the modules.

show hostname

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

show hostname

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

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

Examples

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

```
switch# show hostname
switch
switch#
```

Related Commands

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

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 {*filesystem*: *//server/* [*directory*] *filename*}

Syntax Description

filesystem:	Name of the file system. Valid values are **bootflash** or **volatile**.
//server/	Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file to compare with the loaded software image. The filename is case sensitive.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the configuration incompatibilities:

```
switch# show incompatibility system bootflash://sup-local/old_image.bin
```

Related Commands

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

show install all

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

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

Syntax Description

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the installation failure reason:

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

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

```
switch# show install all impact
```

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

```
switch# show install all status
There is an on-going installation...
Enter Ctrl-C to go back to the prompt.

switch#
```

This example shows how to display the impact of installing new images on a switch that runs Cisco NX-OS Release 5.0(3)N1(1):

```
switch# show install all impact

Verifying image bootflash:/n5000-uk9-kickstart.5.0.3.N1.bin for boot variable "kickstart".
[####################] 100% -- SUCCESS

Verifying image bootflash:/n5000-uk9.5.0.3.N1.bin for boot variable "system".
```

```
[####################] 100% -- SUCCESS

Verifying image type.
[############         ]  50%
[####################] 100% -- SUCCESS

Extracting "system" version from image bootflash:/n5000-uk9.5.0.3.N1.bin.
[####################] 100% -- SUCCESS

Extracting "kickstart" version from image bootflash:/n5000-uk9-kickstart.5.0.3.N1.bin.
[####################] 100% -- SUCCESS

Extracting "bios" version from image bootflash:/n5000-uk9.5.0.3.N1.bin.
[####################] 100% -- SUCCESS

Extracting "fex" version from image bootflash:/n5000-uk9.5.0.3.N1.bin.
[####################] 100% -- SUCCESS

Extracting "fexth" version from image bootflash:/n5000-uk9.5.0.3.N1.bin.
[####################] 100% -- SUCCESS

Performing module support checks.
[####################] 100% -- SUCCESS

Notifying services about system upgrade.
[####################] 100% -- SUCCESS



Compatibility check is done:
Module  bootable          Impact  Install-type  Reason
------  --------  --------------  ------------  ------
     1       yes  non-disruptive          none
   101       yes  non-disruptive          none
   102       yes  non-disruptive          none
   103       yes  non-disruptive       rolling
   106       yes  non-disruptive       rolling
   107       yes  non-disruptive       rolling
   108       yes  non-disruptive       rolling


Images will be upgraded according to following table:
Module       Image         Running-Version             New-Version  Upg-Required
------  ----------  ----------------------  ----------------------  ------------
     1      system             5.0(3)N1(1)             5.0(3)N1(1)            no
     1   kickstart             5.0(3)N1(1)             5.0(3)N1(1)            no
     1        bios      v3.5.0(02/03/2011)      v3.5.0(02/03/2011)            no
     1      SFP-uC               v1.0.0.0                v1.0.0.0            no
   101         fex             5.0(3)N1(1)             5.0(3)N1(1)            no
   102       fexth             5.0(3)N1(1)             5.0(3)N1(1)            no
   103       fexth           5.0(3u)N1(1u)             5.0(3)N1(1)           yes
   106       fexth           5.0(3u)N1(1u)             5.0(3)N1(1)           yes
   107         fex           5.0(3u)N1(1u)             5.0(3)N1(1)           yes
   108       fexth           5.0(3u)N1(1u)             5.0(3)N1(1)           yes
     1   power-seq                    v4.0                    v4.0            no
     2   power-seq                    v1.0                    v1.0            no
     3   power-seq                    v1.0                    v1.0            no
     4   power-seq                    v1.0                    v1.0            no
     1          uC               v1.0.0.2                v1.0.0.2            no


switch#
```

Related Commands

Command	Description
install all	Installs the software on the physical device.
show boot	Displays the boot variable configuration.

show inventory

To display the physical inventory information for the switch hardware, use the **show inventory** command.

show inventory [**fex** *chassis_ID*]

Syntax Description

fex *chassis_ID*	(Optional) Specifies the Fabric Extender chassis ID. The chassis ID is from 100 to 199.

Command Default

Displays all hardware inventory information.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.0(1a)N2(1)	This command was modified to provide Fabric Extender support.

Examples

This example shows how to display the switch hardware inventory information:

```
switch# show inventory
NAME: "Chassis", DESCR: "Nexus5020 Chassis"
PID: N5K-C5020P-BF     , VID: V04 , SN: SSI13390FZT

NAME: "Module 1", DESCR: "40x10GE/Supervisor"
PID: N5K-C5020P-BF     , VID: V04 , SN: JAF1344BHNK

NAME: "Module 2", DESCR: "6x10GE Ethernet Module"
PID: N5K-M1600         , VID: V01 , SN: JAB1228018M

NAME: "Module 3", DESCR: "8x1/2/4G FC Module"
PID: N5K-M1008         , VID: V01 , SN: JAB1231020C

NAME: "Fan 1", DESCR: "Chassis fan module"
PID: N5K-C5020-FAN     , VID: N/A , SN: N/A

NAME: "Fan 3", DESCR: "Chassis fan module"
PID: N5K-C5020-FAN     , VID: N/A , SN: N/A

NAME: "Fan 4", DESCR: "Chassis fan module"
PID: N5K-C5020-FAN     , VID: N/A , SN: N/A

NAME: "Fan 5", DESCR: "Chassis fan module"
PID: N5K-C5020-FAN     , VID: N/A , SN: N/A

NAME: "Power supply 1", DESCR: "AC power supply"
PID: N5K-PAC-1200W     , VID: V01 , SN: DTM134200L5

NAME: "Power supply 2", DESCR: "AC power supply"
PID: N5K-PAC-1200W     , VID: V01 , SN: DTM134200L4
```

```
NAME: "FEX 100 CHASSIS", DESCR: "N2K-C2148T-1GE  CHASSIS"
PID: N2K-C2148T-1GE    , VID: V01 , SN: FOX1252GQJR

NAME: "FEX 100 Module 1", DESCR: "Fabric Extender Module: 48x1GE, 4X10GE Supervi
sor"
PID: N2K-C2148T-1GE    , VID: V01 , SN: JAF1302ABDP

NAME: "FEX 100 Fan 1", DESCR: "Fabric Extender Fan module"
PID: N2K-C2148-FAN     , VID: N/A , SN: N/A

NAME: "FEX 100 Power Supply 1", DESCR: "Fabric Extender AC power supply"
PID: N2K-PAC-200W      , VID: V01 , SN: PAC12493LQX

NAME: "FEX 100 Power Supply 2", DESCR: "Fabric Extender AC power supply"
--More--
switch#
```

This example shows how to display the hardware inventory information for an attached Fabric Extender:

```
switch# show inventory fex 101
NAME: "FEX 100 CHASSIS", DESCR: "N2K-C2148T-1GE  CHASSIS"
PID: N2K-C2148T-1GE    , VID: V01 , SN: FOX1252GQJR

NAME: "FEX 100 Module 1", DESCR: "Fabric Extender Module: 48x1GE, 4X10GE Supervi
sor"
PID: N2K-C2148T-1GE    , VID: V01 , SN: JAF1302ABDP

NAME: "FEX 100 Fan 1", DESCR: "Fabric Extender Fan module"
PID: N2K-C2148-FAN     , VID: N/A , SN: N/A

NAME: "FEX 100 Power Supply 1", DESCR: "Fabric Extender AC power supply"
PID: N2K-PAC-200W      , VID: V01 , SN: PAC12493LQX

NAME: "FEX 100 Power Supply 2", DESCR: "Fabric Extender AC power supply"
PID: N5K-PAC-200W      , VID: 00V0, SN: PAC12423L1Q

switch#
```

Related Commands

Command	Description
show hardware internal	Displays information about the physical hardware.
show module	Displays information about the modules.

show license

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

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

Syntax Description

brief	(Optional) Displays a list of license files installed on a device.
default	(Optional) Displays the services that use the default license.
file *filename*	(Optional) Displays information for a specific license file.

Command Default

Displays information about the installed licenses.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
5.1(3)N1(1)	The **default** keyword was introduced.

Examples

This example shows how to display a specific license installed on the switch:

```
switch# show license file fc5020.lic
```

This example shows how to display a list of license files installed on a device:

```
switch# show license brief
fcoelicense.lic
switch#
```

This example shows how to display the services that use the default license:

```
switch# show license default
Feature                              Default License Count
--------------------------------------------------------------------------------
FCOE_NPV_PKG                         -
FM_SERVER_PKG                        -
ENTERPRISE_PKG                       -
FC_FEATURES_PKG                      -
VMFEX_FEATURE_PKG                    -
ENHANCED_LAYER2_PKG                  -
--------------------------------------------------------------------------------
switch#
```

This example shows how to display all licenses installed on a device:

```
switch# show license
fcoelicense.lic:
SERVER this_host ANY
VENDOR cisco
INCREMENT ENTERPRISE_PKG cisco 1.0 permanent uncounted \
        VENDOR_STRING=<LIC_SOURCE>MDS_SWIFT</LIC_SOURCE><SKU>N5020-SSK9=</SKU> \
```

```
        HOSTID=VDH=SSI13390FZT \
        NOTICE="<LicFileID>20100611101827012</LicFileID><LicLineID>1</LicLineID>
 \
        <PAK></PAK>" SIGN=877DB4A06E0C
INCREMENT FC_FEATURES_PKG cisco 1.0 permanent uncounted \
        VENDOR_STRING=<LIC_SOURCE>MDS_SWIFT</LIC_SOURCE><SKU>N5020-SSK9=</SKU> \
        HOSTID=VDH=SSI13390FZT \
        NOTICE="<LicFileID>20100611101827012</LicFileID><LicLineID>2</LicLineID>
 \
        <PAK></PAK>" SIGN=A075D610878C

switch#
```

Related Commands

Command	Description
install license	Installs a license.
show license host-id	Displays the serial number of the chassis to use for licensing.
show license usage	Displays license usage information.

show license host-id

To display the serial number (host ID) of the switch 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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The serial number is the entire string that appears after the colon (:) as shown in the example.

Examples

This example shows how to display the host ID that is required to request node-locked licenses:

```
switch# show license host-id
License hostid: VDH=FLC12300568
switch#
```

Related Commands

Command	Description
install license	Installs a license.
show license	Displays license information.
show license usage	Displays license usage information.

show license usage

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

show license usage [*PACKAGE*]

Syntax Description

PACKAGE	(Optional) List of licensed features in use for the specified license package.

Command Default

Displays license usage for the switch.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display information about the current license usage:

```
switch# show license usage
Feature                      Ins  Lic   Status Expiry Date Comments
                                 Count
--------------------------------------------------------------------------------
FM_SERVER_PKG                 No    -   Unused             -
ENTERPRISE_PKG                Yes   -   Unused Never       -
FC_FEATURES_PKG               Yes   -   In use Never       -
--------------------------------------------------------------------------------
```

This example shows how to display information about the current license usage on a switch that runs Cisco NX-OS Release 5.0(3)N2(1):

```
switch# show license usage
Feature                      Ins  Lic   Status Expiry Date Comments
                                 Count
--------------------------------------------------------------------------------
FCOE_NPV_PKG                  No    -   In use             Grace 115D 19H
FM_SERVER_PKG                 No    -   Unused             -
ENTERPRISE_PKG                No    -   Unused             Grace 119D 22H
FC_FEATURES_PKG               No    -   Unused             Grace 54D 11H
LAN_BASE_SERVICES_PKG         Yes   -   In use Never       license missing
LAN_ENTERPRISE_SERVICES_PKG   No    -   Unused             -
--------------------------------------------------------------------------------
**** WARNING: License file(s) missing. ****
switch#
```

This example shows how to display information about the current license usage on a switch that runs Cisco NX-OS Release 5.1(3)N1(1):

```
switch# show license usage
Feature                      Ins  Lic   Status Expiry Date Comments
                                 Count
--------------------------------------------------------------------------------
FCOE_NPV_PKG                  No    -   Unused             Grace 119D 22H
```

```
FM_SERVER_PKG                No    -   Unused           -
ENTERPRISE_PKG               No    -   Unused           Grace 109D 0H
FC_FEATURES_PKG              No    -   Unused           Grace 119D 23H
VMFEX_FEATURE_PKG            No    -   In use           Grace 106D 19H
ENHANCED_LAYER2_PKG          No    -   In use           Grace 72D 0H
--------------------------------------------------------------------------------
switch#
```

Table 1 describes the columns used in the **show license usage** command output.

Table 1 show license usage Columns

Column	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 that 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 FC_FEATURES_PKG
Application
-----------
PFM
-----------
switch#
```

Related Commands

Command	Description
install license	Installs a license.
show license	Displays license information.
show license host-id	Displays the serial number of the chassis to use for licensing.

show line

To display terminal port configuration information, use the **show line** command.

show line [**console** [**user-input-string**]]

Syntax Description

console	(Optional) Displays only information about the console port configuration.
user-input-string	(Optional) Displays the user-input initialization string.

Command Default

Displays information about the terminal port configuration.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.1(3)N1(1)	The **show line console user-input-string** was added.

Examples

This example shows how to display information about the terminal port configuration information:

```
switch# show line
line Console:
    Speed:        115200 baud
    Databits:     8 bits per byte
    Stopbits:     2 bit(s)
    Parity:       none
    Modem In: Disable
    Modem Init-String -
        default : ATE0Q1&D2&C1S0=1\015

line Aux:
    Speed:        9600 baud
    Databits:     8 bits per byte
    Stopbits:     1 bit(s)
    Parity:       none
    Modem In: Disable
    Modem Init-String -
        default : ATE0Q1&D2&C1S0=1\015
    Hardware Flowcontrol: ON

switch#
```

This example shows how to display only the information about the console port configuration:

```
switch# show line console
line Console:
    Speed:        115200 baud
    Databits:     8 bits per byte
    Stopbits:     2 bit(s)
    Parity:       none
    Modem In: Disable
```

```
    Modem Init-String -
        default : ATE0Q1&D2&C1S0=1\015

switch#
```

This example shows how to display the user-input initialization string for a modem:

```
switch# show line console user-input-string
Console's user-input string is ATE0Q1&D2&C1S0=3\015
switch#
```

Related Commands

Command	Description
line console	Enters the console port configuration mode.

show module

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

show module [*module-number* | **fex** [*chassis_ID* | **all**]]

Syntax Description

module-number	(Optional) Number of the module. The valid range is from 1 to 3.
fex	(Optional) Displays information about the attached Fabric Extender units.
chassis_ID	(Optional) Fabric Extender chassis ID. The chassis ID is from 100 to 199.
all	(Optional) Displays information about all the attached Fabric Extender units.

Command Default

Displays module information for all modules in the switch chassis.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.0(1a)N2(1)	Support for Fabric Extender was added.
5.1(3)N1(1)	Support to display the ASIC version of Layer 3 daughter card and GEM card.

Examples

This example shows how to display information for all modules in the chassis:

```
switch# show module
Mod Ports  Module-Type                       Model                 Status
--- -----  -------------------------------- --------------------- ------------
1    40     40x10GE/Supervisor               N5K-C5020P-BF-SUP      active *
2    6      6x10GE Ethernet Module           N5K-M1600              ok
3    8      8x1/2/4G FC Module               N5K-M1008              ok

Mod  Sw              Hw      World-Wide-Name(s) (WWN)
---  --------------  ------  --------------------------------------------------
1    4.2(1)N2(1)     1.3     --
2    4.2(1)N2(1)     0.100   --
3    4.2(1)N2(1)     0.200   20:81:00:0d:ec:e7:df:40 to 20:88:00:0d:ec:e7:df:40

Mod  MAC-Address(es)                         Serial-Num
---  --------------------------------------  ----------
1    000d.ece7.df48 to 000d.ece7.df6f         JAF1344BHNK
2    000d.ece7.df70 to 000d.ece7.df77         JAB1228018M
3    000d.ece7.df78 to 000d.ece7.df7f         JAB1231020C
switch#
```

This example shows how to display information for a specific module:

```
switch# show module 2
Mod Ports  Module-Type                       Model                 Status
--- -----  -------------------------------- --------------------- ------------
2    6      6x10GE Ethernet Module           N5K-M1600              ok
```

```
Mod  Sw              Hw      World-Wide-Name(s) (WWN)
---  --------------  ------  --------------------------------------------------
2    4.2(1)N2(1)     0.100   --

Mod  MAC-Address(es)                         Serial-Num
---  --------------------------------------  ----------
2    000d.ece7.df70 to 000d.ece7.df77         JAB1228018M
switch#
```

This example shows how to display information about an attached Fabric Extender:

```
switch# show module fex 100
FEX Mod Ports Card Type                          Model               Status.
--- --- ----- -------------------------------- ------------------ -----------
100 1   48    Fabric Extender 48x1GE Module      N2K-C2148T-1GE     present

FEX Mod Sw              Hw      World-Wide-Name(s) (WWN)
--- --- --------------  ------  ---------------------------------------------
100 1   4.2(1)N2(1)     1.0     --

FEX Mod  MAC-Address(es)                         Serial-Num
--- ---  --------------------------------------  ----------
100 1    000d.ecb1.ef00 to 000d.ecb1.ef2f        JAF1302ABDP
switch#
```

This example shows how to display information about all attached Fabric Extender units:

```
switch# show module fex all
FEX Mod Ports Card Type                          Model               Status.
--- --- ----- -------------------------------- ------------------ -----------
100 1   48    Fabric Extender 48x1GE Module      N2K-C2148T-1GE     present
150 1   48    Fabric Extender 48x1GE + 4x10G Mod N2K-C2248TP-1GE    present
151 1   48    Fabric Extender 48x1GE + 4x10G Mod N2K-C2248TP-1GE    present
170 1   32    Fabric Extender 32x10G BaseT + 8x1 0                  present
171 1   32    Fabric Extender 32x10G BaseT + 8x1 0                  present
198 1   32    Fabric Extender 32x10GE + 8x10G Mo N2K-C2232PP-10GE   present
199 1   32    Fabric Extender 32x10GE + 8x10G Mo N2K-C2232PP-10GE   present

FEX Mod Sw              Hw      World-Wide-Name(s) (WWN)
--- --- --------------  ------  ---------------------------------------------
100 1   4.2(1)N2(1)     1.0     --
150 1   4.2(1)N2(1)     3.4     --
151 1   4.2(1)N2(1)     3.2     --
170 1   4.2(1)N2(1)     1.0     --
171 1   4.2(1)N2(1)     1.0     --
198 1   4.2(1)N2(1)     3.4     --
199 1   4.2(1)N2(1)     3.5     --

FEX Mod  MAC-Address(es)                         Serial-Num
--- ---  --------------------------------------  ----------
100 1    000d.ecb1.ef00 to 000d.ecb1.ef2f        JAF1302ABDP
150 1    000d.ecfc.a140 to 000d.ecfc.a16f        JAF1407AARL
151 1    000d.ecf4.f916 to 000d.ecf4.f945        JAF1352AHAL
170 1    68ef.bd62.1080 to 68ef.bd62.109f        JAF1417BTEM
171 1    68ef.bd62.1680 to 68ef.bd62.169f        JAF1421DMEA
198 1    000d.ecf7.d4a3 to 000d.ecf7.d4c2        JAF1352AQCH
199 1    68ef.bd61.d8c0 to 68ef.bd61.d8df        JAF1409ATAM
switch#
```

This example shows how to display information for all modules in the chassis of a switch that runs Cisco NX-OS Release 5.1(3)N1(1):

```
switch# show module
```

```
Mod Ports  Module-Type                       Model                 Status
--- -----  --------------------------------- --------------------- ------------
1    48     O2 48X10GE/Modular Supervisor    N5K-C5596UP-SUP        active *
2    32     GEM with L3 ASIC                 N55-M160L3-V2          ok
switch#
```

Related Commands

Command	Description
show hardware internal	Displays information about the physical hardware.
show inventory	Displays hardware inventory information.

show processes

To display the process information for the switch, use the **show processes** command.

show processes

Syntax Description

This command has no arguments or keywords.

Command Default

Displays information for all processes running on the switch.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the process information for a device:

```
switch# show processes

PID    State  PC        Start_cnt    TTY   Process
-----  -----  --------  -----------  ----  -------------
    1      S  b7f9e468            1     -  init
    2      S         0            1     -  ksoftirqd/0
    3      S         0            1     -  desched/0
    4      S         0            1     -  events/0
    5      S         0            1     -  khelper
   10      S         0            1     -  kthread
   18      S         0            1     -  kacpid
  169      S         0            1     -  kblockd/0
  182      S         0            1     -  khubd
  247      S         0            1     -  pdflush
  248      S         0            1     -  pdflush
  249      S         0            1     -  kswapd0
  250      S         0            1     -  aio/0
  251      S         0            1     -  SerrLogKthread
  809      S         0            1     -  kide/0
  812      S         0            1     -  ata/0
  817      S         0            1     -  mtdblockd
  845      S         0            1     -  scsi_eh_0
  846      S         0            1     -  usb-storage
 1362      S         0            1     -  kjournald
 1370      S         0            1     -  kjournald
 2127      S         0            1     -  jffs2_gcd_mtd2
 2184      S         0            1     -  kjournald
 2644      S  b7f8718e            1     -  portmap
 2653      S         0            1     -  nfsd
 2654      S         0            1     -  nfsd
 2655      S         0            1     -  nfsd
 2656      S         0            1     -  nfsd
 2657      S         0            1     -  nfsd
 2658      S         0            1     -  nfsd
```

```
 2659      S         0            1     -  nfsd
 2660      S         0            1     -  nfsd
 2661      S         0            1     -  lockd
 2662      S         0            1     -  rpciod
 2667      S  b7f89468            1     -  rpc.mountd
 2673      S  b7f89468            1     -  rpc.statd
 2700      S  b7df3468            1     -  sysmgr
 3344      S         0            1     -  mping-thread
 3511      S         0            1     -  insmod
 3892      S  b7f4b468            1     -  xinetd
 3893      S  b7f89468            1     -  tftpd
--More--
switch#
```

Related Commands

Command	Description
show processes cpu	Displays the CPU utilization information for processes.
show processes log	Displays the contents of the process log.
show processes memory	Displays the memory allocation information for processes.

show processes cpu

To display the CPU utilization information for processes on the device, use the **show processes cpu** command.

show processes cpu

Syntax Description

This command has no arguments or keywords.

Command Default

Displays information for all processes in the local device.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the CPU utilization information for the processes:

```
switch# show processes cpu

PID    Runtime(ms)  Invoked   uSecs  1Sec    Process
-----  -----------  --------  -----  ------  -----------
    1         1802     22973     78   0.0%  init
    2          440     44555      9   0.0%  ksoftirqd/0
    3           79     17021      4   0.0%  desched/0
    4         2097     92976     22   0.0%  events/0
    5           71      3224     22   0.0%  khelper
   10            0        18     20   0.0%  kthread
   18            0         2      2   0.0%  kacpid
  169            5       669      8   0.0%  kblockd/0
  182          121        42   2885   0.0%  khubd
  247            0         2      1   0.0%  pdflush
  248          326     20427     15   0.0%  pdflush
  249            0         1      4   0.0%  kswapd0
  250            0         2      1   0.0%  aio/0
  251            0         1      1   0.0%  SerrLogKthread
  809            0         2      1   0.0%  kide/0
  812            0         2      1   0.0%  ata/0
  817            0         1      3   0.0%  mtdblockd
  845            0         1      6   0.0%  scsi_eh_0
  846          132     36789      3   0.0%  usb-storage
 1362            0         1      8   0.0%  kjournald
 1370            0         1      5   0.0%  kjournald
 2127          367        56   6560   0.0%  jffs2_gcd_mtd2
 2184           20       743     27   0.0%  kjournald
 2644            0        21     38   0.0%  portmap
 2653            0        42     14   0.0%  nfsd
 2654            0        30      2   0.0%  nfsd
 2655            0        30      2   0.0%  nfsd
 2656            0        30      2   0.0%  nfsd
 2657            0        30      2   0.0%  nfsd
```

```
 2658            0        30       2    0.0%  nfsd
 2659            0        32       4    0.0%  nfsd
 2660            0        32       3    0.0%  nfsd
 2661            0         2      33    0.0%  lockd
 2662            0         1       6    0.0%  rpciod
 2667            0         1      71    0.0%  rpc.mountd
 2673            2         5     571    0.0%  rpc.statd
 2700          152    251559       0    0.0%  sysmgr
 3344            0         1      22    0.0%  mping-thread
 3511         1825     10196     179    0.0%  insmod
 3892           12         3    4105    0.0%  xinetd
 3893            3         4     843    0.0%  tftpd
--More--
switch#
```

Related Commands

Command	Description
show processes	Displays the process information for the switch.
show processes log	Displays the contents of the process log.
show processes memory	Displays the memory allocation information for processes.

show processes log

To display the contents of the process log, use the **show processes log** command.

show processes log [**details** | **pid** *process-id*]

Syntax Description

details	(Optional) Displays detailed information from the process log.
pid *process-id*	(Optional) Displays detailed information from the process log for a specific process. The process ID range is from 1 to 2147483647.

Command Default

Displays summary information for all processes on the device.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display summary information from the process log:

```
switch# show processes log
Process          PID     Normal-exit  Stack  Core   Log-create-time
---------------  ------  -----------  -----  -----  ---------------
afm              2948              N      Y      N  Fri Dec  4 00:36:19 2009
afm              2997              N      Y      N  Tue Dec 15 04:09:57 2009
afm              3871              N      N      N  Sat Mar 20 18:22:14 2010
afm              3875              N      N      N  Fri Mar 26 08:45:06 2010
afm              3877              N      Y      N  Mon Mar 22 03:56:38 2010
afm              3886              N      N      N  Fri Mar 26 08:45:06 2010
afm              3887              N      N      N  Sat Mar 20 18:22:15 2010
afm              3889              N      N      N  Sun Mar 21 06:15:00 2010
afm              3890              N      N      N  Sat Mar 20 18:22:16 2010
afm              3895              N      N      N  Fri Mar 26 08:45:08 2010
afm              3898              N      N      N  Fri Mar 26 08:45:08 2010
afm              3904              N      Y      N  Mon Apr  5 19:28:56 2010
afm              3915              N      N      N  Sun Mar 21 06:15:01 2010
afm              3918              N      Y      N  Mon Mar 22 03:43:42 2010
afm              3919              N      N      N  Sun Mar 21 06:15:03 2010
afm              3922              N      Y      N  Mon Mar 22 03:56:44 2010
afm              3930              N      N      N  Sun Mar 21 06:15:03 2010
afm              3942              N      Y      N  Wed Apr  7 18:47:39 2010
afm              3943              N      Y      N  Tue Apr  6 00:09:46 2010
afm              3950              N      Y      N  Mon Mar 22 03:43:45 2010
afm              3962              N      Y      N  Mon Mar 22 03:43:47 2010
afm              3967              N      Y      N  Tue Apr  6 21:57:55 2010
afm              4054              N      Y      N  Tue Mar 23 07:30:21 2010
afm              4220              N      N      N  Fri Mar 26 08:45:34 2010
afm              4224              N      N      N  Sat Mar 20 18:22:45 2010
--More--
switch#
```

This example shows how to display detailed information from the process log:

```
switch# show processes log details
================================================
Service: afm
Description: Acl manager Daemon

Started at Fri Dec  4 00:36:05 2009 (209115 us)
Stopped at Fri Dec  4 00:36:19 2009 (274038 us)
Uptime: 14 seconds

Start type: SRV_OPTION_RESTART_STATEFUL (24)
Death reason: SYSMGR_DEATH_REASON_FAILURE_SIGNAL (2)
Last heartbeat 0.00 secs ago
RLIMIT_AS: 272490099
System image name: n5000-uk9.4.2.1.N1.0.173.bin
System image version: 4.2(1)N1(0.173) S0

PID: 2948
Exit code: signal 11 (core dumped)

CWD: /var/sysmgr/work

Virtual Memory:

    CODE      08048000 - 081467A4
    DATA      08147000 - 0816A968
    BRK       08192000 - 085E3000
    STACK     BFFFFA90
    TOTAL     99840 KB

Register Set:

    EBX B6FA2178         ECX 00000001         EDX 0836EF98
    ESI 0000000C         EDI 0836F040         EBP BFFFEB48
    EAX BFFFEB70         XDS C010007B         XES 0000007B
    EAX FFFFFFFF (orig)  EIP 00000000         XCS 00000073
    EFL 00010296         ESP BFFFEB1C         XSS 0000007B

Stack: 3956 bytes. ESP BFFFEB1C, TOP BFFFFA90

0xBFFFEB1C: B6F3B1EA BFFFEB70 B6568860 00000001 ....p...`.V.....
0xBFFFEB2C: B6F3B1CE 00000000 B6FA2294 0000024F .........."..O...
0xBFFFEB3C: 00000007 0000000C 00000000 BFFFEBD8 ................
0xBFFFEB4C: 08107B82 0836F040 BFFFEB70 BFFFEB68 .{..@.6.p...h...
0xBFFFEB5C: BFFFEB6C B6F71C64 00000000 BFFFEB88 l...d...........
0xBFFFEB6C: B6F4F72A 00000000 00000008 B6F75D71 *...........q]..
--More--
switch#
```

This example shows how to display detailed information from the process log for a specific process:

```
switch# show processes log pid 2948
================================================
Service: afm
Description: Acl manager Daemon

Started at Fri Dec  4 00:36:05 2009 (209115 us)
Stopped at Fri Dec  4 00:36:19 2009 (274038 us)
Uptime: 14 seconds

Start type: SRV_OPTION_RESTART_STATEFUL (24)
Death reason: SYSMGR_DEATH_REASON_FAILURE_SIGNAL (2)
Last heartbeat 0.00 secs ago
```

```
RLIMIT_AS: 272490099
System image name: n5000-uk9.4.2.1.N1.0.173.bin
System image version: 4.2(1)N1(0.173) S0

PID: 2948
Exit code: signal 11 (core dumped)

CWD: /var/sysmgr/work

Virtual Memory:

    CODE      08048000 - 081467A4
    DATA      08147000 - 0816A968
    BRK       08192000 - 085E3000
    STACK     BFFFFA90
    TOTAL     99840 KB

Register Set:

    EBX B6FA2178         ECX 00000001         EDX 0836EF98
    ESI 0000000C         EDI 0836F040         EBP BFFFEB48
    EAX BFFFEB70         XDS C010007B         XES 0000007B
    EAX FFFFFFFF (orig)  EIP 00000000         XCS 00000073
    EFL 00010296         ESP BFFFEB1C         XSS 0000007B

Stack: 3956 bytes. ESP BFFFEB1C, TOP BFFFFA90

0xBFFFEB1C: B6F3B1EA BFFFEB70 B6568860 00000001 ....p...`.V.....
0xBFFFEB2C: B6F3B1CE 00000000 B6FA2294 0000024F .........."..O...
0xBFFFEB3C: 00000007 0000000C 00000000 BFFFEBD8 ................
0xBFFFEB4C: 08107B82 0836F040 BFFFEB70 BFFFEB68 .{..@.6.p...h...
0xBFFFEB5C: BFFFEB6C B6F71C64 00000000 BFFFEB88 l...d...........
0xBFFFEB6C: B6F4F72A 00000000 00000008 B6F75D71 *...........q]..
--More--
switch#
```

Related Commands

Command	Description
show processes	Displays the process information for the switch.
show processes cpu	Displays the CPU utilization information for processes.
show processes memory	Displays the memory allocation information for processes.

show processes memory

To display the memory allocation information for processes, use the **show processes memory** command.

show processes memory [**shared** [**detail**]]

Syntax Description

shared	(Optional) Displays the shared memory allocation.
detail	(Optional) Displays the shared memory in bytes instead of the default kilobytes.

Command Default

Displays memory allocated to the processes.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display information about the memory allocation for processes:

```
switch# show processes memory

PID    MemAlloc StkSize   RSSMem   LibMem    StackBase/Ptr      Process
----   -------  -------  -------   -------   -------------     ---------
    1    147456    86016   495616  1126400 bffffea0/bffff990  init
    2         0        0        0        0        0/0         ksoftirqd/0
    3         0        0        0        0        0/0         desched/0
    4         0        0        0        0        0/0         events/0
    5         0        0        0        0        0/0         khelper
   10         0        0        0        0        0/0         kthread
   18         0        0        0        0        0/0         kacpid
  169         0        0        0        0        0/0         kblockd/0
  182         0        0        0        0        0/0         khubd
  247         0        0        0        0        0/0         pdflush
  248         0        0        0        0        0/0         pdflush
  249         0        0        0        0        0/0         kswapd0
  250         0        0        0        0        0/0         aio/0
  251         0        0        0        0        0/0         SerrLogKthread
  809         0        0        0        0        0/0         kide/0
  812         0        0        0        0        0/0         ata/0
  817         0        0        0        0        0/0         mtdblockd
  845         0        0        0        0        0/0         scsi_eh_0
  846         0        0        0        0        0/0         usb-storage
 1362         0        0        0        0        0/0         kjournald
 1370         0        0        0        0        0/0         kjournald
 2127         0        0        0        0        0/0         jffs2_gcd_mtd2
 2184         0        0        0        0        0/0         kjournald
 2644    155648    86016   438272  1216512 bffffdf0/bffffcf0  portmap
--More--
switch#
```

This example shows how to display information about the shared memory allocation for processes:

```
switch# show processes memory shared
Component             Shared Memory       Size        Used  Available  Reference
                             Address   (kbytes)    (kbytes)   (kbytes)      Count
smm                      0X60000000       1024           3       1021         21
cli                      0X60110000      30720*      13982      16738          6
npacl                    0X61F20000       4096*          1       4095          1
u6rib-ufdm               0X62330000        320*        188        132          1
am                       0X62390000       1024*         13       1011          4
urib                     0X624A0000      32768*        700      32068         11
urib-redist              0X644B0000       4096*          0       4096         11
icmpv6                   0X648C0000       1024           0       1024          1
u6rib                    0X649D0000      16384*        665      15719          5
urib-ufdm                0X659E0000       2048*          0       2048          1
ip                       0X65BF0000       2048          68       1980         10
u6rib-notify             0X65E00000       2048*        795       1253          5
ipv6                     0X66010000       1024          59        965          3
igmp                     0X66120000       1024           0       1024          1
Shared memory totals - Size: 98 MB, Used: 17 MB, Available: 82 MB
switch#
```

Related Commands

Command	Description
show processes	Displays the process information for the switch.
show processes cpu	Displays the CPU utilization information for processes.
show processes log	Displays the contents of the process log.

show running-config

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

show running-config [**all**]

Syntax Description

all	(Optional) Displays all the default and configured information.

Command Default

Displays only the configured information.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the changes that you have made to the running configuration:

```
switch# show running-config

!Command: show running-config
!Time: Tue Jul 13 06:05:42 2010

version 4.2(1)N2(1)
feature fcoe
feature telnet
feature tacacs+
feature udld
feature interface-vlan
feature lacp
feature vpc
feature lldp
feature fex
snmp-server enable traps entity fru
role name default-role
  description This is a system defined role and applies to all users.
  rule 5 permit command feature environment
  rule 4 permit command feature hardware
  rule 3 permit command feature module
  rule 2 permit command feature snmp
  rule 1 permit command feature system
role name praveena
username admin password 5 $1$VrQsB2KX$4jkUcx3sXWU8lhI1mlwLa/  role network-admin
username oregon password 5 $1$p3VJ0/BY$Kp22A08NeqCQ0asxUKXq91  role network-oper
ator
no password strength-check
ip domain-lookup
ip host switch 192.168.2.215
ip host BEND-1 192.168.2.215
tacacs-server host 192.168.2.54 key 7 "wawy1234"
aaa group server tacacs+ t1
    server 192.168.2.54
```

```
    use-vrf management
aaa group server tacacs+ tacacs
radius-server host 192.168.2.5 key 7 "KkwyCet" authentication accounting
aaa group server radius r1
    server 192.168.2.5
    use-vrf management
hostname switch
logging event link-status default
errdisable recovery interval 30
no errdisable detect cause link-flap
errdisable recovery cause pause-rate-limit
--More--
switch#
```

This example shows how to display the entire running configuration, including the default values:

```
switch# show running-config all
```

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Table 2 describes the notations used in the command output.

Table 2 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 in the running configuration but is not in the startup configuration.
`- text`	Indicates that the line is not in the running configuration but it is in the startup configuration.
`! text`	Indicates that the line exists in both configurations but in different orders.

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
***************
*** 1874,1883 ****
--- 1873,1883 ----
  system cores tftp://192.168.2.5/tftpboot/ vrf management
  vsan database
    vsan 700
  cfs eth distribute
  fcdomain fcid database
```

```
+   vsan 700 wwn 10:00:00:00:00:15:43:e8 fcid 0x350000 dynamic
    vsan 1 wwn 20:44:00:0d:ec:b0:fc:40 fcid 0x780000 dynamic
    vsan 1 wwn 20:43:00:0d:ec:b0:fc:40 fcid 0x780001 dynamic
    vsan 1 wwn 24:01:00:0d:ec:b0:fc:40 fcid 0x780002 dynamic

  interface Vlan1
***************
*** 2089,2103 ****
--- 2089,2113 ----
    priority-flow-control mode on
    speed 1000
    flowcontrol receive on
    service-policy type qos input 1

+ interface port-channel1932
+   shutdown
+   switchport mode trunk
+   switchport trunk allowed vlan 600
+   spanning-tree bpdufilter enable
+   speed 10000
+
  interface vfc1

  interface vfc199
    bind mac-address 00:00:11:11:22:22
+   fcoe fcf-priority 1
    no shutdown
+ vsan database
+   vsan 700 interface vfc199

  interface fc3/1

  interface fc3/2

--More--
switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config	Displays the differences between the running configuration and the startup configuration.
show startup-config	Displays the startup configuration.

show sprom

To display the contents of the serial PROM (SPROM) on the switch, use the **show sprom** command.

show sprom {**all** | **backplane** | **fex** {*chassis_ID* {**all** | **backplane** | **powersupply** *ps-num*} | **all**} | **module** *module-number* | **powersupply** *ps-num* | **sup**}

Syntax Description

all	Displays the SPROM contents for all components on the physical device.
backplane	Displays the SPROM contents for the backplane.
fex	Displays information about the attached Fabric Extender units.
chassis_ID	(Optional) Fabric Extender chassis ID. The chassis ID is from 100 to 199.
module *module-number*	Displays the SPROM contents for an I/O module. The module number range is from 1 to 3.
powersupply *ps-num*	Displays the SPROM contents for a power supply module number. The power supply module number is 1 or 2.
sup	Displays the SPROM contents for the active supervisor module.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.0(1a)N2(1)	This command was modified to provide Fabric Extender support.

Usage Guidelines

The SPROM on the switch contains detailed information about the hardware, including serial, part, and revision numbers. If you need to report a problem with a system component, you can extract serial number information using the **show sprom** command.

Examples

This example shows how to display SPROM information for all components on the physical device:

```
switch# show sprom all
DISPLAY backplane sprom contents:
Common block:
 Block Signature : 0xabab
 Block Version   : 3
 Block Length    : 160
 Block Checksum  : 0x17d7
 EEPROM Size     : 65535
 Block Count     : 4
 FRU Major Type  : 0x6001
 FRU Minor Type  : 0x0
 OEM String      : Cisco Systems, Inc.
 Product Number  : N5K-C5020P-BF
```

```
 Serial Number   : SSI13390FZT
 Part Number     : 68-3301-06
 Part Revision   : A0
 Mfg Deviation   : 0
 H/W Version     : 0.0
 Mfg Bits        : 0
 Engineer Use    : 0
 snmpOID         : 9.12.3.1.3.719.0.0
 Power Consump   : 0
 RMA Code        : 0-0-0-0
 CLEI Code       : COMXG00ARC
 VID             : V04
Chassis specific block:
 Block Signature : 0x6001
 Block Version   : 3
 Block Length    : 39
 Block Checksum  : 0x3ca
 Feature Bits    : 0x0
 HW Changes Bits : 0x0
 Stackmib OID    : 0
 MAC Addresses   : 00-0d-ec-e7-df-40
 Number of MACs  : 64
 OEM Enterprise  : 0
 OEM MIB Offset  : 0
 MAX Connector Power: 0
WWN software-module specific block:
 Block Signature : 0x6005
 Block Version   : 1
 Block Length    : 0
 Block Checksum  : 0x20dd
wwn usage bits:
 00 00 00 00 00 00 00 00
--More--
switch#
```

This example shows how to display SPROM information for the backplane:

```
switch# show sprom backplane
DISPLAY backplane sprom contents:
Common block:
 Block Signature : 0xabab
 Block Version   : 3
 Block Length    : 160
 Block Checksum  : 0x17d7
 EEPROM Size     : 65535
 Block Count     : 4
 FRU Major Type  : 0x6001
 FRU Minor Type  : 0x0
 OEM String      : Cisco Systems, Inc.
 Product Number  : N5K-C5020P-BF
 Serial Number   : SSI13390FZT
 Part Number     : 68-3301-06
 Part Revision   : A0
 Mfg Deviation   : 0
 H/W Version     : 0.0
 Mfg Bits        : 0
 Engineer Use    : 0
 snmpOID         : 9.12.3.1.3.719.0.0
 Power Consump   : 0
 RMA Code        : 0-0-0-0
 CLEI Code       : COMXG00ARC
 VID             : V04
Chassis specific block:
 Block Signature : 0x6001
```

```
 Block Version    : 3
--More--
switch#
```

This example shows how to display SPROM information for an attached Fabric Extender:

```
switch# show sprom fex 101 all
```

Related Commands

Command	Description
show hardware internal	Displays information about the physical hardware.
show inventory	Displays hardware inventory information.

show startup-config

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

show startup-config

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the startup configuration:

```
switch# show startup-config

!Command: show startup-config
!Time: Tue Jul 13 06:14:51 2010
!Startup config saved at: Fri Jul  9 23:19:25 2010

version 4.2(1)N2(1)
feature fcoe
feature telnet
feature tacacs+
feature udld
feature interface-vlan
feature lacp
feature vpc
feature lldp
feature fex
snmp-server enable traps entity fru
role name default-role
  description This is a system defined role and applies to all users.
  rule 5 permit command feature environment
  rule 4 permit command feature hardware
  rule 3 permit command feature module
  rule 2 permit command feature snmp
  rule 1 permit command feature system
role name praveena
username admin password 5 $1$VrQsB2KX$4jkUcx3sXWU8lhI1mlwLa/  role network-admin
username oregon password 5 $1$p3VJ0/BY$Kp22A08NeqCQ0asxUKXq91  role network-oper
ator
--More--
switch#
```

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The **show hostname** command also displays the switch hostname.

Examples

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

```
switch# show switchname
```

Related Commands

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

show system cores

To display the core filename, use the **show system cores** command.

show system cores

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

Use the **system cores** command to configure the system core filename.

Examples

This example shows how to display destination information for the system core files:

```
switch# show system cores
Cores are transferred to tftp://192.168.2.5/tftpboot/
switch#
```

Related Commands

Command	Description
system cores	Configures the system core filename.

show system reset-reason

To display the reset history for the switch, use the **show system reset-reason** command.

show system reset-reason [**fex** *chassis_ID*]

Syntax Description

fex *chassis_ID*	(Optional) Specifies the Fabric Extender chassis ID. The chassis ID is from 100 to 199.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.0(1a)N2(1)	This command was modified to provide Fabric Extender support.

Examples

This example shows how to display the reset-reason history for the switch:

```
switch# show system reset-reason
----- reset reason for Supervisor-module 1 (from Supervisor in slot 1) ---
1) No time
    Reason: Unknown
    Service:
    Version: 4.2(1)N2(1)

2) No time
    Reason: Unknown
    Service:
    Version: 4.2(1)N2(1)

3) At 543557 usecs after Fri Jul  9 18:20:45 2010
    Reason: Reset due to upgrade
    Service:
    Version: 4.2(1)N1(1)

4) At 572283 usecs after Fri Jul  9 05:12:27 2010
    Reason: Reset due to upgrade
    Service:
    Version: 4.2(1)N2(1)

switch#
```

This example shows how to display the reset-reason history for an attached Fabric Extender:

```
switch# show system reset-reason fex 100
----- reset reason for FEX 100 ---

1) At 0 usecs after Unknown time
    Reset Reason: Unknown (0)
```

```
    Service (Additional Info):
    Image Version: 4.2(1)N2(1)

2) At 0 usecs after Unknown time
    Reset Reason: Unknown (0)
    Service (Additional Info):
    Image Version: 4.2(1)N2(1)

3) At 713709 usecs after Fri Jul  9 18:36:32 2010
    Reset Reason: Reset due to upgrade (88)
    Service (Additional Info): Reset due to upgrade
    Image Version: 4.2(1)N1(1)

4) At 702748 usecs after Fri Jul  9 05:27:06 2010
    Reset Reason: Reset due to upgrade (88)
    Service (Additional Info): Reset due to upgrade
    Image Version: 4.2(1)N2(1)

switch#
```

show system resources

To display the system resources, use the **show system resources** command.

show system resources

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.2(1)N2(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the system resources on a switch that runs Cisco NX-OS Release 5.0(3)N1(1):

```
switch(config)# show system resources
Load average:   1 minute: 3.31   5 minutes: 1.21   15 minutes: 0.58
Processes   :   270 total, 2 running
CPU states  :   4.0% user,   5.0% kernel,   91.1% idle
Memory usage:   2073416K total,   1386684K used,    686732K free

switch(config)#
```

Related Commands

Command	Description
show processes cpu	Displays the CPU utilization information for processes on the device.

show system uptime

To display the amount of time since the last system restart, use the **show system uptime** command.

show system uptime

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the amount of time since the last system restart:

```
switch# show system uptime
System start time:          Mon Jul 12 01:37:08 2010
System uptime:              1 days, 4 hours, 42 minutes, 19 seconds
Kernel uptime:              1 days, 4 hours, 44 minutes, 19 seconds
Active supervisor uptime:   1 days, 4 hours, 42 minutes, 19 seconds
switch#
```

show tech-support

To display information for Cisco technical support, use the **show tech-support** command.

show tech-support [**brief** | **commands** | *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.
feature	(Optional) Specific feature name. Use the command-line interface (CLI) context-sensitive help (for example, **show tech-support ?**) for the list of features.

Command Default

Displays information for all features.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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** > *filename*) in the local writable storage file system or the remote file system.

You can use one of the following redirection methods:

- > *filename*—Redirects the output to a file.
- >> *filename*—Redirects the output to a file in append mode.

Examples

This example shows how to display technical support information:

```
switch# show tech-support
---- show tech-support ----
`show switchname`
switch
`show system uptime`
System start time:          Mon Jul 12 01:37:08 2010
System uptime:              1 days, 4 hours, 42 minutes, 53 seconds
Kernel uptime:              1 days, 4 hours, 44 minutes, 54 seconds
Active supervisor uptime:   1 days, 4 hours, 42 minutes, 53 seconds
`show interface mgmt0`
mgmt0 is up
  Hardware: GigabitEthernet, address: 000d.ece7.df40 (bia 000d.ece7.df40)
  Internet Address is 192.168.1.215/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
```

```
  Encapsulation ARPA
  full-duplex, 1000 Mb/s
  1 minute input rate 5408 bits/sec, 4 packets/sec
  1 minute output rate 1320 bits/sec, 1 packets/sec
  Rx
    465934 input packets 311703 unicast packets 73820 multicast packets
    80411 broadcast packets 250277048 bytes
  Tx
    158490 output packets 155374 unicast packets 1725 multicast packets
    1391 broadcast packets 13184030 bytes

`show system resources`
Load average:   1 minute: 2.28   5 minutes: 1.77   15 minutes: 1.30
--More--
switch#
```

This example shows how to redirect the technical support information to a file:

```
switch# show tech-support > bootflash:TechSupport.txt
```

This example shows how to display the brief technical support information for the switch:

```
switch# show tech-support brief
Switch Name           : switch
Switch Type           : 40x10GE/Supervisor
Kickstart Image       : 4.2(1)N2(1) bootflash:/sanity-kickstart
System Image          : 4.2(1)N2(1) bootflash:/sanity-system
IP Address/Mask       : 192.168.1.215/24
No of VSANs           : 2
Configured VSANs      : 1,700

VSAN    1:    name:VSAN0001, state:active, interop mode:default
              domain id:0x78(120), WWN:20:01:00:0d:ec:e7:df:41 [Principal]
              active-zone:<NONE>, default-zone:deny

VSAN  700:    name:VSAN0700, state:active, interop mode:default
              domain id:0x35(53), WWN:22:bc:00:0d:ec:e7:df:41 [Principal]
              active-zone:<NONE>, default-zone:permit


--------------------------------------------------------------------------------
Interface  Vsan   Admin  Admin   Status          SFP    Oper  Oper   Port
                  Mode   Trunk                         Mode  Speed  Channel
                         Mode                                (Gbps)
--------------------------------------------------------------------------------
fc3/1      1      auto   on      sfpAbsent       --     --           --
fc3/2      1      auto   on      sfpAbsent       --     --           --
fc3/3      1      auto   on      down            swl    --           --
fc3/4      1      auto   on      down            swl    --           --
fc3/5      1      auto   on      sfpAbsent       --     --           --
--More--
switch#
```

This example shows how to display the technical support information for a specific feature:

```
switch# show tech-support aaa
`show running-config aaa all`

!Command: show running-config aaa all
!Time: Tue Jul 13 06:23:49 2010

version 4.2(1)N2(1)
aaa authentication login default local
aaa authorization config-commands default local
aaa authorization commands default local
```

```
aaa accounting default local
aaa user default-role
no aaa authentication login error-enable
no aaa authentication login mschap enable
no aaa authentication login mschapv2 enable
no aaa authentication login ascii-authentication
no radius-server directed-request
no tacacs-server directed-request


`show system internal aaa event-history msgs`
1) Event:E_MTS_RX, length:60, at 932934 usecs after Tue Jul 13 06:23:49 2010
    [REQ] Opc:MTS_OPC_SDWRAP_DEBUG_DUMP(1530), Id:0X011968A2, Ret:SUCCESS
    Src:0x00000101/7389, Dst:0x00000101/111, Flags:None
    HA_SEQNO:0X00000000, RRtoken:0x011968A2, Sync:UNKNOWN, Payloadsize:216
    Payload:
    0x0000:  01 00 2f 74 6d 70 2f 64 62 67 64 75 6d 70 31 39

--More--
switch#
```

This example shows how to display the commands used to generate the technical support information:

```
switch# show tech-support commands
```

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.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display information about the terminal configuration for a session:

```
switch# show terminal
TTY: /dev/pts/1 Type: "ansi"
Length: 29 lines, Width: 80 columns
Session Timeout: 0 minutes
Event Manager CLI event bypass: no
Redirection mode: ascii
switch#
```

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 [**fex** *chassis_ID* | **image** *filename*]

Syntax Description

fex *chassis_ID*	(Optional) Specifies the Fabric Extender chassis ID. The chassis ID is from 100 to 199.
image *filename*	(Optional) Displays the version information for a system or kickstart image file.

Command Default

Displays software version information for the running kickstart and system images.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.
4.0(1a)N2(1)	This command was modified to provide Fabric Extender support.

Examples

This example shows how to display the version information for the kickstart and system image running on the device:

```
switch# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2010, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained herein are owned by
other third parties and are used and distributed under license.
Some parts of this software are covered under the GNU Public
License. A copy of the license is available at
http://www.gnu.org/licenses/gpl.html.

Software
  BIOS:      version 1.3.0
  loader:    version N/A
  kickstart: version 4.2(1)N2(1)
  system:    version 4.2(1)N2(1)
  power-seq: version v1.2
  BIOS compile time:       09/08/09
  kickstart image file is: bootflash:/sanity-kickstart
  kickstart compile time:  7/28/2010 11:00:00 [07/07/2010 22:20:39]
  system image file is:    bootflash:/sanity-system
  system compile time:     7/28/2010 11:00:00 [07/07/2010 23:47:55]


Hardware
  cisco Nexus5020 Chassis ("40x10GE/Supervisor")
  Intel(R) Xeon(R) CPU         with 2074288 kB of memory.
  Processor Board ID JAF1344BHNK
```

```
  Device name: NEXUS5K-1
  bootflash:    1003520 kB

Kernel uptime is 0 day(s), 9 hour(s), 9 minute(s), 7 second(s)

Last reset
  Reason: Unknown
  System version: 4.2(1)N2(1)
  Service:

plugin
  Core Plugin, Ethernet Plugin, Fc Plugin
switch#
```

This example shows how to display the version information for an attached Fabric Extender:

```
switch# show version fex 100
Software
  Bootloader version:           1.12
  System boot mode:             primary
  System image version:         4.2(1)N2(1) [build 4.2(1)N2(1)]

Hardware
  Module:                       Fabric Extender 48x1GE Module
  CPU:                          Motorola, e300c1
  Serial number:                JAF1302ABDP
  Bootflash:                    locked

Kernel uptime is 0 day(s), 9 hour(s), 9 minutes(s), 16 second(s)

Last reset at Fri Jul 02 04:27:04 2010
  Reason: Reset Requested by CLI command reload
  Service: Reload requested by supervisor
switch#
```

This example shows how to display the version information for the kickstart and system image running on a device that runs Cisco NX-OS Release 5.0(2)N2(1):

```
switch# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2010, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained herein are owned by
other third parties and are used and distributed under license.
Some parts of this software are covered under the GNU Public
License. A copy of the license is available at
http://www.gnu.org/licenses/gpl.html.

Software
  BIOS:      version 1.3.0
  loader:    version N/A
  kickstart: version 5.0(2)N2(1) [build 5.0(2)N2(1)]
  system:    version 5.0(2)N2(1) [build 5.0(2)N2(1)]
  power-seq: version v1.2
  BIOS compile time:       09/08/09
  kickstart image file is: bootflash:/sanity-kickstart
  kickstart compile time:  12/6/2010 7:00:00 [12/06/2010 07:35:14]
  system image file is:    bootflash:/sanity-system
  system compile time:     12/6/2010 7:00:00 [12/06/2010 08:56:45]

Hardware
  cisco Nexus5010 Chassis ("20x10GE/Supervisor")
  Intel(R) Celeron(R) M CPU    with 2073416 kB of memory.
```

```
  Processor Board ID JAF1228BTAS

  Device name: BEND-2
  bootflash:    1003520 kB

Kernel uptime is 0 day(s), 3 hour(s), 30 minute(s), 45 second(s)

Last reset
  Reason: Unknown
  System version:
  Service:

plugin
  Core Plugin, Ethernet Plugin, Fc Plugin
switch#
```

T Commands

This chapter describes the basic Cisco NX-OS system commands that begin with T.

tail

To display the last lines of a file, use the **tail** command.

tail [*filesystem*: [*//server/*]] [*directory*] *filename* [*lines*]

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash**, **modflash**, or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
filename	Name of the file to display. The filename is case sensitive.
lines	(Optional) Number of lines to display. The range is from 0 to 80.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

Displays the last 10 lines.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the last 10 lines of a file:

```
switch# tail bootflash:startup.cfg
```

This example shows how to display the last 20 lines of a file:

```
switch# tail bootflash:startup.cfg 20
```

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.

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.

Command Default

The initial default for the console is 0 (do not pause output). The initial default for virtual terminal sessions is defined by the client software. The default for the **no** form is 24 lines.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	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.

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 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). Use 0 to disable the terminal inactivity timeout.

Command Default

Terminal session timeout is disabled (0 minutes).

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The terminal session inactivity timeout setting applies only to the current session.

Examples

This example shows how to set the terminal inactivity timeout for the session to 10 minutes:

```
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 terminal-type

To set the terminal type for the current session, use the **terminal terminal-type** command. To revert to the default, use the **no** form of this command.

terminal terminal-type *type*

terminal no terminal-type

Syntax Description

type	Type of terminal. The type string is case sensitive, must be a valid type (for example, ansi, vt100, or xterm), and has a maximum of 80 characters.

Command Default

For a virtual terminal, the terminal type is set during negotiation with the client software. Otherwise, vt100 is the default.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The terminal type setting applies only to the current session.

Examples

This example shows how to set the terminal type:

```
switch# terminal terminal-type xterm
```

This example shows how to revert to the default terminal type:

```
switch# terminal no terminal-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.

Command Default

For a virtual terminal, the width is set during negotiation with the client software. Otherwise, 80 columns is the default.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

The terminal width setting applies only to the current session.

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 IP address, use the **traceroute** command.

traceroute {*dest-addr* | *hostname*} [**vrf** {*vrf-name* | **default** | **management**}] [**source** *src-addr*]

Syntax Description

dest-addr	IP 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.
default	(Optional) Specifies the default VRF.
management	(Optional) Specifies the management VRF.
source *src-addr*	(Optional) Specifies a source IP address. The format is *A.B.C.D*. The default is the IPv4 address for the management interface of the switch.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to discover a route to a network device:

```
switch# traceroute 192.0.255.18 vrf management
```

Related Commands

Command	Description
ping	Displays the network connectivity to another network device.
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-addr* | *hostname*} [**vrf** {*vrf-name* | **default** | **management**}] [**source** *src-addr*]

Syntax Description

dest-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) instance. The name is case sensitive and can be a maximum of 32 alphanumeric characters.
default	(Optional) Specifies the default VRF.
management	(Optional) Specifies the management VRF.
source *src-addr*	(Optional) Specifies a source IPv6 address. The format is *A*:*B*::*C*:*D*. The default is the IPv6 address for the management interface of the switch.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(1a)N1(1)	This command was introduced.

Examples

This example shows how to discover a route to a device:

```
switch# traceroute6 2001:0DB8::200C:417A vrf management
```

Related Commands

Command	Description
ping6	Determines connectivity to another device using IPv6 addressing.
traceroute	Discovers the route to a device using IPv4 addressing.

U Commands

This chapter describes the basic Cisco NX-OS system commands that begin with U.

update license

To update an existing license, use the **update license** command.

update license [*filesystem*: [*//server/*]] [*directory*] *src-filename* [*target-filename*]

Syntax Description

filesystem:	(Optional) Name of the file system. Valid values are **bootflash** or **volatile**.
//server/	(Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (**//**) is required.
directory	(Optional) Name of a directory. The directory name is case sensitive.
src-filename	Name of the source license file.
target-filename	(Optional) Name of the target license file.

Note There can be no spaces in the *filesystem://server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to update a license:

```
switch# update license bootflash:fm.lic fm-update.lic
```

Related Commands

Command	Description
show license	Displays license information.

W Commands

This chapter describes the basic Cisco NX-OS system commands that begin with W.

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 configuration.
debug	(Optional) Erases only the debug configuration.

Command Default

Erases all configuration in persistent memory.

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

You can use this command to erase the startup configuration in the persistent memory when information is corrupted or otherwise unusable. Erasing the startup configuration returns the switch to its initial state.

Examples

This example shows how to erase the startup configuration:

```
switch# write erase
```

This example shows how to erase the debug configuration in the persistent memory:

```
switch# 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.