Configuring Terminal Settings and Sessions

This chapter contains the following sections:

About Terminal Settings and Sessions

This section includes information about terminal settings and sessions.

Terminal Session Settings

The Cisco NX-OS software features allow you to manage the following characteristics of terminals:

Terminal type
Name used by Telnet when communicating with remote hosts

Length
Number of lines of command output displayed before pausing

Width
Number of characters displayed before wrapping the line

Inactive session timeout
Number of minutes that a session remains inactive before the device terminates it

Console Port

The console port is an asynchronous serial port that allows you to connect to the device for initial configuration through a standard RS-232 port with an RJ-45 connector. Any device connected to this port must be capable of asynchronous transmission. You can configure the following parameters for the console port:

Data bits
Specifies the number of bits in an 8-bit byte that is used for data.

Inactive session timeout
Specifies the number of minutes a session can be inactive before it is terminated.

Parity

Specifies the odd or even parity for error detection.

Speed

Specifies the transmission speed for the connection.

Stop bits

Specifies the stop bits for an asynchronous line.

Configure your terminal emulator with 9600 baud, 8 data bits, 1 stop bit, and no parity.

Virtual Terminals

You can use virtual terminal lines to connect to your device. Secure Shell (SSH) and Telnet create virtual terminal sessions. You can configure an inactive session timeout and a maximum sessions limit for virtual terminals.

Default Settings for File System Parameters

This table lists the default settings for the file system parameters.

Table 1: Default File System Settings

Parameters	Default
Default filesystem	bootflash:

Configuring the Console Port

You can set the following characteristics for the console port:

- Data bits

- Inactive session timeout

- Parity

- Speed

- Stop bits

Before you begin

Log in to the console port.

SUMMARY STEPS

1. **configure terminal**
2. **line console**
3. **databits** *bits*
4. **exec-timeout** *minutes*
5. **parity** {**even** | **none** | **odd**}

6. **speed** {**300** | **1200** | **2400** | **4800** | **9600** | **38400** | **57600** | **115200**}
7. **stopbits** {**1** | **2**}
8. **exit**
9. (Optional) **show line console**
10. (Optional) **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose

Step 1	**configure terminal**
	
	Example:
	`switch# configure terminal`
	`switch(config)#`
		Enters global configuration mode.

Step 2	**line console**
	
	Example:
	`switch# line console`
	`switch(config-console)#`
		Enters console configuration mode.

Step 3	**databits** *bits* **Example:** `switch(config-console)# databits 7`	Configures the number of data bits per byte. The range is from 5 to 8. The default is 8.
Step 4	**exec-timeout** *minutes* **Example:** `switch(config-console)# exec-timeout 30`	Configures the timeout for an inactive session. The range is from 0 to 525600 minutes (8760 hours). A value of 0 minutes disables the session timeout. The default is 30 minutes.
Step 5	**parity** {**even**	**none**	**odd**} **Example:** `switch(config-console)# parity even`	Configures the parity. The default is **none**.
Step 6	**speed** {**300**	**1200**	**2400**	**4800**	**9600**	**38400**	**57600**	**115200**} **Example:** `switch(config-console)# speed 115200`	Configures the transmit and receive speed. The default is 9600.
Step 7	**stopbits** {**1**	**2**} **Example:** `switch(config-console)# stopbits 2`	Configures the stop bits. The default is 1.

Step 8	**exit**
	
	Example:
	`switch(config-console)# exit`
	`switch(config)#`
		Exits console configuration mode.

	Command or Action	**Purpose**
Step 9	(Optional) **show line console** **Example:** switch(config)# show line console	Displays the console settings.
Step 10	(Optional) **copy running-config startup-config** **Example:** switch(config)# copy running-config startup-config	Copies the running configuration to the startup configuration.

Configuring Virtual Terminals

This section describes how to configure virtual terminals on Cisco NX-OS devices.

Configuring the Inactive Session Timeout

You can configure a timeout for inactive virtual terminal sessions on the device.

SUMMARY STEPS

1. **configure terminal**
2. **line vty**
3. **exec-timeout** *minutes*
4. **exit**
5. (Optional) **show running-config all | begin vty**
6. (Optional) **copy running-config startup-config**

DETAILED STEPS

	Command or Action	**Purpose**
Step 1	**configure terminal** **Example:** switch# configure terminal switch(config)#	Enters global configuration mode.
Step 2	**line vty** **Example:** switch# line vty switch(config-line)#	Enters line configuration mode.
Step 3	**exec-timeout** *minutes* **Example:** switch(config-line)# exec-timeout 30	Configures the inactive session timeout. The range is from 0 to 525600 minutes (8760 hours). A value of 0 minutes disables the timeout. The default value is 30.

	Command or Action	Purpose

Step 4	**exit**
	
	Example:
	`switch(config-line)# exit`
	`switch(config)#`
		Exits line configuration mode.

Step 5	(Optional) **show running-config all | begin vty** **Example:** `switch(config)# show running-config all | begin vty`	Displays the virtual terminal configuration.
Step 6	(Optional) **copy running-config startup-config** **Example:** `switch(config)# copy running-config startup-config`	Copies the running configuration to the startup configuration.

Configuring the Session Limit

You can limit the number of virtual terminal sessions on your device.

SUMMARY STEPS

1. **configure terminal**
2. **line vty**
3. **session-limit** *sessions*
4. **exit**
5. (Optional) **show running-config all | begin vty**
6. (Optional) **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose

Step 1	**configure terminal**
	
	Example:
	`switch# configure terminal`
	`switch(config)#`
		Enters global configuration mode.

Step 2	**line vty**
	
	Example:
	`switch# line vty`
	`switch(config-line)#`
		Enters line configuration mode.

Step 3	**session-limit** *sessions* **Example:** `switch(config-line)# session-limit 10`	Configures the maximum number of virtual sessions for your device. The range is from 1 to 64. The default is 32.

	Command or Action	Purpose

Step 4	**exit**
	
	Example:
	
	`switch(config-line)# exit`
	`switch(config)#`
		Exits line configuration mode.

Step 5	(Optional) **show running-config all | begin vty**
	
	Example:
	
	`switch(config)# show running-config all | begin`
	`vty`
		Displays the virtual terminal configuration.

Step 6	(Optional) **copy running-config startup-config** **Example:** `switch(config)# copy running-config startup-config`	Copies the running configuration to the startup configuration.

Clearing Terminal Sessions

You can clear terminal sessions on your device.

SUMMARY STEPS

1. (Optional) **show users**
2. **clear line** *name*

DETAILED STEPS

	Command or Action	Purpose
Step 1	(Optional) **show users** **Example:** `switch# show users`	Displays the user sessions on the device.
Step 2	**clear line** *name* **Example:** `switch# clear line pts/0`	Clears a terminal session on a specific line. The line name is case sensitive.

Displaying Terminal and Session Information

To display terminal and session information, perform one of the following tasks:

Command	Purpose
show terminal	Displays terminal settings.
show line	Displays the COM1 and console ports settings.

Command	Purpose
show users	Displays virtual terminal sessions.
show running-config [**all**]	Displays the user account configuration in the running configuration. The **all** keyword displays the default values for the user accounts.