



Configuring Terminal Settings and Sessions

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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.

Licensing Requirements for Terminal Settings and Sessions

The following table shows the licensing requirements for this feature:

Product	License Requirement
Cisco NX-OS	Terminal setting configuration requires no license. Any feature not included in a license package is bundled with the nx-os image and is provided at no extra charge to you. For a complete explanation of the Cisco NX-OS licensing scheme, see the <i>Cisco NX-OS Licensing Guide</i> .

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.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <pre>switch# configure terminal switch(config)#</pre>	Enters global configuration mode.
Step 2	line console Example: <pre>switch# line console switch(config-console)#</pre>	Enters console configuration mode.
Step 3	databits <i>bits</i> Example: <pre>switch(config-console)# databits 7</pre>	Configures the number of data bits per byte. The range is from 5 to 8. The default is 8.
Step 4	exec-timeout <i>minutes</i> Example: <pre>switch(config-console)# exec-timeout 30</pre>	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: <pre>switch(config-console)# parity even</pre>	Configures the parity. The default is none .
Step 6	speed {300 1200 2400 4800 9600 38400 57600 115200} Example: <pre>switch(config-console)# speed 115200</pre>	Configures the transmit and receive speed. The default is 9600.
Step 7	stopbits {1 2} Example: <pre>switch(config-console)# stopbits 2</pre>	Configures the stop bits. The default is 1.
Step 8	exit Example: <pre>switch(config-console)# exit switch(config)#</pre>	Exits console configuration mode.

	Command or Action	Purpose
Step 9	(Optional) show line console Example: <code>switch(config)# show line console</code>	Displays the console settings.
Step 10	(Optional) copy running-config startup-config Example: <code>switch(config)# copy running-config startup-config</code>	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.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <code>switch# configure terminal</code> <code>switch(config)#</code>	Enters global configuration mode.
Step 2	line vty Example: <code>switch# line vty</code> <code>switch(config-line)#</code>	Enters line configuration mode.
Step 3	exec-timeout <i>minutes</i> Example: <code>switch(config-line)# exec-timeout 30</code>	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.
Step 4	exit Example: <code>switch(config-line)# exit</code> <code>switch(config)#</code>	Exits line configuration mode.
Step 5	(Optional) show running-config all begin vty Example:	Displays the virtual terminal configuration.

	Command or Action	Purpose
	<code>switch(config)# show running-config all begin vty</code>	
Step 6	(Optional) copy running-config startup-config Example: <code>switch(config)# copy running-config startup-config</code>	Copies the running configuration to the startup configuration.

Configuring the Session Limit

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

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: <code>switch# configure terminal switch(config)#</code>	Enters global configuration mode.
Step 2	line vty Example: <code>switch# line vty switch(config-line)#</code>	Enters line configuration mode.
Step 3	session-limit sessions Example: <code>switch(config-line)# session-limit 10</code>	Configures the maximum number of virtual sessions for your device. The range is from 1 to 64. The default is 32.
Step 4	exit Example: <code>switch(config-line)# exit switch(config)#</code>	Exits line configuration mode.
Step 5	(Optional) show running-config all being vty Example: <code>switch(config)# show running-config all begin vty</code>	Displays the virtual terminal configuration.
Step 6	(Optional) copy running-config startup-config Example: <code>switch(config)# copy running-config startup-config</code>	Copies the running configuration to the startup configuration.

Clearing Terminal Sessions

You can clear terminal sessions on your device.

Procedure

	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.
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.

Additional References for Terminal Settings and Sessions

This section includes additional references for terminal settings and sessions on Cisco NX-OS devices.

Related Documents for Terminal Settings and Sessions

Related Topic	Document Title
Licensing	<i>Cisco NX-OS Licensing Guide</i>