



# 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.

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

	Command or Action	Purpose
<b>Step 9</b>	(Optional) <b>show line console</b>  <b>Example:</b> switch(config)# show line console	Displays the console settings.
<b>Step 10</b>	(Optional) <b>copy running-config startup-config</b>  <b>Example:</b> 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
<b>Step 1</b>	<b>configure terminal</b>  <b>Example:</b> switch# configure terminal switch(config)#	Enters global configuration mode.
<b>Step 2</b>	<b>line vty</b>  <b>Example:</b> switch# line vty switch(config-line)#	Enters line configuration mode.
<b>Step 3</b>	<b>exec-timeout <i>minutes</i></b>  <b>Example:</b> 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
<b>Step 4</b>	<b>exit</b> <b>Example:</b> switch(config-line)# exit switch(config)#	Exits line configuration mode.
<b>Step 5</b>	(Optional) <b>show running-config all   begin vty</b> <b>Example:</b> switch(config)# show running-config all   begin vty	Displays the virtual terminal configuration.
<b>Step 6</b>	(Optional) <b>copy running-config startup-config</b> <b>Example:</b> 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
<b>Step 1</b>	<b>configure terminal</b> <b>Example:</b> switch# configure terminal switch(config)#	Enters global configuration mode.
<b>Step 2</b>	<b>line vty</b> <b>Example:</b> switch# line vty switch(config-line)#	Enters line configuration mode.
<b>Step 3</b>	<b>session-limit sessions</b> <b>Example:</b> 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
<b>Step 4</b>	<b>exit</b> <b>Example:</b> switch(config-line)# exit switch(config)#	Exits line configuration mode.
<b>Step 5</b>	(Optional) <b>show running-config all   begin vty</b> <b>Example:</b> switch(config)# show running-config all   begin vty	Displays the virtual terminal configuration.
<b>Step 6</b>	(Optional) <b>copy running-config startup-config</b> <b>Example:</b> 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
<b>Step 1</b>	(Optional) <b>show users</b> <b>Example:</b> switch# show users	Displays the user sessions on the device.
<b>Step 2</b>	<b>clear line</b> <i>name</i> <b>Example:</b> 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
<b>show terminal</b>	Displays terminal settings.
<b>show line</b>	Displays the COM1 and console ports settings.

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

