



# Basic Device Management

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This chapter describes how to configure, manage, and verify the basic setting on your Cisco NX-OS device.

- [Information About Basic Device Management, on page 1](#)
- [Guidelines and Limitations for Basic Device Management, on page 2](#)
- [Changing the Device Hostname, on page 2](#)
- [Configuring the MOTD Banner, on page 3](#)
- [Configuring the Time Zone, on page 4](#)
- [Configuring Summer Time \(Daylight Saving Time\), on page 5](#)
- [Manually Setting the Device Clock, on page 6](#)
- [Setting the Clock Manager, on page 7](#)
- [Managing Users, on page 8](#)
- [Verifying the Device Configuration, on page 9](#)
- [Default Settings for Basic Device Parameters, on page 9](#)
- [Additional References for Basic Device Management, on page 10](#)

## Information About Basic Device Management

This section provides information about basic device management.

### Device Hostname

You can change the device hostname displayed in the command prompt from the default (switch) to another character string. When you give the device a unique hostname, you can easily identify the device from the command-line interface (CLI) prompt.

### Message-of-the-Day Banner

The message-of-the-day (MOTD) banner displays before the user login prompt on the device. This message can contain any information that you want to display for users of the device.

### Device Clock

If you do not synchronize your device with a valid outside timing mechanism, such as an NTP clock source, you can manually set the clock time when your device boots.

## Clock Manager

The Cisco Nexus chassis may contain clocks of different types that may need to be synchronized. These clocks are a part of various components (such as the supervisor, LC processors, or line cards) and each may be using a different protocol.

The clock manager provides a way to synchronize these different clocks.

## Time Zone and Summer Time (Daylight Saving Time)

You can configure the time zone and summer time (daylight saving time) setting for your device. These values offset the clock time from Coordinated Universal Time (UTC). UTC is International Atomic Time (TAI) with leap seconds added periodically to compensate for the Earth's slowing rotation. UTC was formerly called Greenwich Mean Time (GMT).

## User Sessions

You can display the active user session on your device. You can also send messages to the user sessions. For more information about managing user sessions and accounts, see the Cisco Nexus security configuration guide for your device.

## Guidelines and Limitations for Basic Device Management

The following are guidelines and limitations for basic device management:

- The **show tech-support libsdk** command and the **show tech-support mtc-usd** command are not supported. Instead use the **show tech-support module 1** command. (NX-OS 7.0(3)I7(2) and later releases.)

## Changing the Device Hostname

You can change the device hostname displayed in the command prompt from the default (switch) to another character string.

### SUMMARY STEPS

1. **configure terminal**
2. **{ hostname | switchname } name**
3. **exit**
4. (Optional) **copy running-config startup-config**

## DETAILED STEPS

### Procedure

	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>{hostname   switchname} name</b>  <b>Example:</b> Using the <b>hostname</b> command:  <pre>switch(config)# hostname Engineering1 Engineering1(config)#</pre> Using the <b>switchname</b> command:  <pre>Engineering1(config)# switchname Engineering2 Engineering2(config)#</pre>	Changes the device hostname. The <i>name</i> argument is alphanumeric, case sensitive, and has a maximum length of 63 characters. The default name is switch.  <b>Note</b> The <b>switchname</b> command performs the same function as the <b>hostname</b> command.
<b>Step 3</b>	<b>exit</b>  <b>Example:</b> <pre>Engineering2(config)# exit Engineering2#</pre>	Exits global configuration mode.
<b>Step 4</b>	(Optional) <b>copy running-config startup-config</b>  <b>Example:</b> <pre>Engineering2# copy running-config startup-config</pre>	Copies the running configuration to the startup configuration.

## Configuring the MOTD Banner

You can configure the MOTD to display before the login prompt on the terminal when a user logs in. The MOTD banner has the following characteristics:

- Maximum of 80 characters per line
- Maximum of 40 lines

### SUMMARY STEPS

1. **configure terminal**
2. **banner motd** *delimiting-character message delimiting-character*
3. **exit**
4. (Optional) **show banner motd**
5. (Optional) **copy running-config startup-config**

## DETAILED STEPS

## Procedure

	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>banner motd <i>delimiting-character message delimiting-character</i></b>  <b>Example:</b> <pre>switch(config)# banner motd #Welcome to the Switch# switch(config)#</pre>	Configures the MOTD banner. Do not use the <i>delimiting-character</i> in the <i>message</i> text.  <b>Note</b> Do not use " or % as a delimiting character.
<b>Step 3</b>	<b>exit</b>  <b>Example:</b> <pre>switch(config)# exit switch#</pre>	Exits global configuration mode.
<b>Step 4</b>	(Optional) <b>show banner motd</b>  <b>Example:</b> <pre>switch# show banner motd</pre>	Displays the configured MOTD banner.
<b>Step 5</b>	(Optional) <b>copy running-config startup-config</b>  <b>Example:</b> <pre>switch# copy running-config startup-config</pre>	Copies the running configuration to the startup configuration.

# Configuring the Time Zone

You can configure the time zone to offset the device clock time from UTC.

## SUMMARY STEPS

1. **configure terminal**
2. **clock timezone *zone-name offset-hours offset-minutes***
3. **exit**
4. (Optional) **show clock**
5. (Optional) **copy running-config startup-config**

## DETAILED STEPS

## Procedure

	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>clock timezone zone-name offset-hours offset-minutes</b> <b>Example:</b> <pre>switch(config)# clock timezone EST -5 0</pre>	Configures the time zone. The <i>zone-name</i> argument is a 3-character string for the time zone acronym (for example, PST or EST). The <i>offset-hours</i> argument is the offset from the UTC and the range is from –23 to 23 hours. The range for the <i>offset-minutes</i> argument is from 0 to 59 minutes.
<b>Step 3</b>	<b>exit</b> <b>Example:</b> <pre>switch(config)# exit switch#</pre>	Exits global configuration mode.
<b>Step 4</b>	(Optional) <b>show clock</b> <b>Example:</b> <pre>switch# show clock</pre>	Displays the time and time zone.
<b>Step 5</b>	(Optional) <b>copy running-config startup-config</b> <b>Example:</b> <pre>switch# copy running-config startup-config</pre>	Copies the running configuration to the startup configuration.

## Configuring Summer Time (Daylight Saving Time)

You can configure when summer time, or daylight saving time, is in effect for the device and the offset in minutes.

## SUMMARY STEPS

1. **configure terminal**
2. **clock summer-time zone-name start-week start-day start-month start-time end-week end-day end-month end-time offset-minutes**
3. **exit**
4. (Optional) **show clock detail**
5. (Optional) **copy running-config startup-config**

## DETAILED STEPS

## Procedure

	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>clock summer-time zone-name start-week start-day start-month start-time end-week end-day end-month end-time offset-minutes</b>  <b>Example:</b> <pre>switch(config)# clock summer-time PDT 1 Sunday March 02:00 1 Sunday November 02:00 60</pre>	<p>Configures summer time or daylight saving time.</p> <p>The <i>zone-name</i> argument is a three character string for the time zone acronym (for example, PST and EST).</p> <p>The values for the <i>start-day</i> and <i>end-day</i> arguments are <b>Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday</b>.</p> <p>The values for the <i>start-month</i> and <i>end-month</i> arguments are <b>January, February, March, April, May, June, July, August, September, October, November, and December</b>.</p> <p>The value for the <i>start-time</i> and <i>end-time</i> arguments are in the format <i>hh:mm</i>.</p> <p>The range for the <i>offset-minutes</i> argument is from 0 to 1440 minutes.</p>
<b>Step 3</b>	<b>exit</b>  <b>Example:</b> <pre>switch(config)# exit switch#</pre>	Exits global configuration mode.
<b>Step 4</b>	(Optional) <b>show clock detail</b>  <b>Example:</b> <pre>switch(config)# show clock detail</pre>	Displays the configured MOTD banner.
<b>Step 5</b>	(Optional) <b>copy running-config startup-config</b>  <b>Example:</b> <pre>switch# copy running-config startup-config</pre>	Copies the running configuration to the startup configuration.

# Manually Setting the Device Clock

You can set the clock manually if your device cannot access a remote time source.

## Before you begin

Configure the time zone.

## SUMMARY STEPS

1. **clock set** *time day month year*
2. (Optional) **show clock**

## DETAILED STEPS

## Procedure

	Command or Action	Purpose
Step 1	<b>clock set</b> <i>time day month year</i>  <b>Example:</b> <pre>switch# clock set 15:00:00 30 May 2008 Fri May 30 15:14:00 PDT 2008</pre>	Configures the device clock.  The format for the <i>time</i> argument is <i>hh:mm:ss</i> .  The range for the <i>day</i> argument is from 1 to 31.  The values for the <i>month</i> argument are <b>January, February, March, April, May, June, July, August, September, October, November, and December</b> .  The range for the <i>year</i> argument is from 2000 to 2030.
Step 2	(Optional) <b>show clock</b>  <b>Example:</b> <pre>switch(config)# show clock</pre>	Displays the current clock value.

## Setting the Clock Manager

You can configure the clock manager to synchronize all the clocks of the components in the Cisco Nexus chassis.

## SUMMARY STEPS

1. **clock protocol** *protocol vdc vdc-num*
2. (Optional) **show run clock\_manager**

## DETAILED STEPS

## Procedure

	Command or Action	Purpose
Step 1	<b>clock protocol</b> <i>protocol vdc vdc-num</i>  <b>Example:</b> <pre># clock protocol ptp vdc 2</pre>	Configures the clock manager.  The values for the <i>protocol</i> argument are <b>ptp</b> , <b>ntp</b> , and <b>none</b> .  The following describes the values: <ul style="list-style-type: none"> <li>• <b>ptp</b>—Synchronizes clocks with Precision Time Protocol (PTP) as described by IEEE 1588.</li> </ul>

	Command or Action	Purpose
		<ul style="list-style-type: none"> <li>• <b>ntp</b>—Synchronizes clocks with Network Time Protocol (NTP).</li> <li>• <b>none</b>—Use <b>clock set</b> to set supervisor clocks.</li> </ul> <p><b>Note</b> When <b>none</b> is used, the clock in the specified VDC must be configured.</p> <p><b>Note</b> Once the protocol is configured, the clock in the specified VDC must use that protocol.</p> <p>For example, if the <b>clock protocol ptp vdc 2</b> command is entered, then PTP should be configured in VDC 2.</p> <p>The range for the <i>vdc</i> argument is 1 to 8.</p>
<b>Step 2</b>	(Optional) <b>show run clock_manager</b>  <b>Example:</b> <pre>#show run clock_manager</pre>	Displays the configuration of the clock manager.

## Managing Users

You can display information about users logged into the device and send messages to those users.

### Displaying Information about the User Sessions

You can display information about the user session on the device.

#### SUMMARY STEPS

1. **show users**

#### DETAILED STEPS

##### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>show users</b>  <b>Example:</b> <pre>switch# show users</pre>	Displays the user sessions.



## Sending a Message to Users

You can send a message to active users currently using the device CLI.

### SUMMARY STEPS

1. (Optional) **show users**
2. **send** [session line] *message-text*

### DETAILED STEPS

#### Procedure

	Command or Action	Purpose
Step 1	(Optional) <b>show users</b>  <b>Example:</b> switch# show users	Displays the active user sessions.
Step 2	<b>send</b> [session line] <i>message-text</i>  <b>Example:</b> switch# send Reloading the device is 10 minutes!	Sends a message to all active users or to a specific user. The message can be up to 80 alphanumeric characters and is case sensitive.

## Verifying the Device Configuration

To verify the configuration, use one of the following commands:

Command	Purpose
<b>show running-config</b>	Displays the running configuration.
<b>show startup-config</b>	Displays the startup configuration.

For detailed information about the fields in the output from these commands, see the Cisco Nexus command reference for your device.

## Default Settings for Basic Device Parameters

This table lists the default settings for basic device parameters.

**Table 1: Default Basic Device Parameters**

Parameters	Default
MOTD banner text	User Access Verification
Clock time zone	UTC

## Additional References for Basic Device Management

Related Topic	Document Title
Cisco NX-OS Licensing	<i>Cisco NX-OS Licensing Guide</i>
Command Reference	<i>Cisco Nexus 3548 Switch NX-OS Fundamentals Command Reference</i>