Basic Device Management

This chapter contains the following sections:

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 NX-OS device might contain clocks of different types that might need to be synchronized. These clocks are a part of various components (such as the supervisor, line card processors, or line cards), and each might 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 9000 Series NX-OS Security Configuration Guide*.

Licensing Requirements for Basic Device Management

The following table shows the licensing requirements for this feature:

Product	License Requirement
Cisco NX-OS	Basic device management 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 *Cisco NX-OS Licensing Guide*.

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

Changing the Device Hostname

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

Procedure

	Command or Action	Purpose

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

Step 2	{**hostname** | **switchname**} *name*
	
	Example:
	Using the **hostname** command:
	`switch(config)# hostname Engineering1`
	`Engineering1(config)#`
	Using the **switchname** command:
	`Engineering1(config)# switchname`
	`Engineering2`
	`Engineering2(config)#`
		Changes the device hostname. The *name* argument is alphanumeric, case sensitive, and has a maximum length of 32 characters. The default is switch.
		
		Note The **switchname** command performs the same function as the **hostname** command.

Step 3	**exit**
	
	Example:
	`Engineering2(config)# exit`
	`Engineering2#`
		Exits global configuration mode.

Step 4	**copy running-config startup-config**
	
	Example:
	`Engineering2# copy running-config`
	`startup-config`
		(Optional)
		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

Procedure

	Command or Action	Purpose

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

Step 2	**banner motd** *delimiting-character message delimiting-character*
	
	Example:
	`switch(config)# banner motd #Welcome to the Switch#`
	`switch(config)#`
		Configures the MOTD banner. Do not use the *delimiting-character* in the *message* text.
		
		Note Do not use " or % as a delimiting character.

Step 3	**exit**
	
	Example:
	`switch(config)# exit`
	`switch#`
		Exits global configuration mode.

Step 4	**show banner motd** **Example:** `switch# show banner motd`	(Optional) Displays the configured MOTD banner.
Step 5	**copy running-config startup-config** **Example:** `switch# copy running-config startup-config`	(Optional) 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.

Procedure

	Command or Action	**Purpose**
Step 1	**configure terminal** **Example:** switch# configure terminal switch(config)#	Enters global configuration mode.
Step 2	**clock timezone** *zone-name offset-hours offset-minutes* **Example:** switch(config)# clock timezone EST -5 0	Configures the time zone. The *zone-name* argument is a 3-character string for the time zone acronym (for example, PST or EST). The *offset-hours* argument is the offset from the UTC and the range is from −23 to 23 hours. The range for the *offset-minutes* argument is from 0 to 59 minutes.
Step 3	**exit** **Example:** switch(config)# exit switch#	Exits global configuration mode.
Step 4	**show clock** **Example:** switch# show clock	(Optional) Displays the time and time zone.
Step 5	**copy running-config startup-config** **Example:** switch# copy running-config startup-config	(Optional) 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.

Procedure

	Command or Action	**Purpose**
Step 1	**configure terminal** **Example:** switch# configure terminal switch(config)#	Enters global configuration mode.
Step 2	**clock summer-time** *zone-name start-week start-day start-month start-time*	Configures summer time or daylight saving time.

	Command or Action	Purpose

	end-week end-day end-month end-time offset-minutes
	
	Example:
	`switch(config)# clock summer-time PDT`
	`1 Sunday March 02:00 1 Sunday November 02:00 60`
		The *zone-name* argument is a three character string for the time zone acronym (for example, PST and EST).
		
		The values for the *start-day* and *end-day* arguments are **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, and **Sunday**.
		
		The values for the *start-month* and *end-month* arguments are **January**, **February**, **March**, **April**, **May**, **June**, **July**, **August**, **September**, **October**, **November**, and **December**.
		
		The value for the *start-time* and *end-time* arguments are in the format *hh***:***mm*.
		
		The range for the *offset-minutes* argument is from 0 to 1440 minutes.

Step 3	**exit**
	
	Example:
	`switch(config)# exit`
	`switch#`
		Exits global configuration mode.

Step 4	**show clock detail** **Example:** `switch(config)# show clock detail`	(Optional) Displays the configured MOTD banner.
Step 5	**copy running-config startup-config** **Example:** `switch# copy running-config startup-config`	(Optional) 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.

Procedure

	Command or Action	Purpose
Step 1	**clock set** *time day month year*	Configures the device clock.

	Command or Action	Purpose

	Example:
	`switch# clock set 15:00:00 30 May 2013`
	`Fri May 30 15:14:00 PDT 2013`
		The format for the *time* argument is *hh***:***mm***:***ss*.
		
		The range for the *day* argument is from 1 to 31.
		
		The values for the *month* argument are **January**, **February**, **March**, **April**, **May**, **June**, **July**, **August**, **September**, **October**, **November**, and **December**.
		
		The range for the *year* argument is from 2000 to 2030.

Step 2	**show clock** **Example:** `switch(config)# show clock`	(Optional) Displays the current clock value.

Related Topics

Setting the Clock Manager

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

Procedure

	Command or Action	Purpose
Step 1	**clock protocol** *protocol* **Example:** `switch# clock protocol ntp`	Configures the clock manager. The values for the *protocol* argument are **ntp** and **none**. The following describes the values: • **ntp**—Synchronizes clocks with Network Time Protocol (NTP). • **none**—Uses **clock set** *HH:MM:SS* to set the supervisor clock. **Note** When **none** is used, the clock must be configured. **Note** Once the protocol is configured, the clock must use that protocol.
Step 2	**show run clock_manager** **Example:** `switch# show run clock_manager`	(Optional) 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.

Procedure

	Command or Action	Purpose
Step 1	**show users** **Example:** `switch# show users`	Displays the user sessions.

Sending a Message to Users

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

Procedure

	Command or Action	Purpose
Step 1	**show users** **Example:** `switch# show users`	(Optional) Displays the active user sessions.

Step 2	**send** [**session** *line*] *message-text*
	
	Example:
	`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 after bootstrapping the device using POAP, use one of the following commands:

Command	Purpose
show running-config	Displays the running configuration.
show startup-config	Displays the startup configuration.

Additional References for Basic Device Management

You can find additional information related to basic device management.

Related Documents for Basic Device Management

Related Topic	Document Title
Licensing	*Cisco NX-OS Licensing Guide*