Managing the Server

Configuring BIOS

BIOS Settings

Before you begin

- You must log in with admin privileges to perform this task.

- You must configure the BIOS password using the server CLI. See *Setting the BIOS Password* in the CLI Configuration Guide for Cisco UCS E-Series M6 Servers.

Procedure

Step 1	In the **Navigation** pane, click the **Compute** menu.
Step 2	In the work pane, click the **BIOS** tab.

Under the BIOS tab, there are several options for further BIOS configuration.

Entering BIOS Setup

When you enter the BIOS setup for the first time, ensure that you secure the BIOS by setting up an admin-level and a user-level password. You have to set up the admin password when you access the BIOS menu for the firsttime. The user password (which only gives access to a small subset of BIOS options) must be set inside the BIOS setup menu.

To set up the admin password, press **F2** when the system boots up. You will be prompted to set the password.

To set up the user password, after you log in, go to the **Security** tab and set the password.

Before you begin

- The server must be powered on.

- You must log in with admin privileges to perform this task.

Procedure

Step 1   In the **BIOS** tab, click the **Enter BIOS Setup** link.

Step 2   In the dialog box, click **OK** to proceed to BIOS setup, or **Cancel** to return to the BIOS UI.

Step 3   Clicking **OK** reboots the host. On restart, the server enters the BIOS setup.

Clearing the BIOS CMOS

Note   On rare occasions, troubleshooting a server may require you to clear the server's BIOS CMOS memory. This procedure is not part of the normal maintenance of a server.

Before you begin

- The server must be powered off.

- You must log in with admin privileges to perform this task.

Procedure

Step 1   In the **BIOS** tab, click the **Clear BIOS CMOS** link.

Step 2   In the dialog box, click **OK** to clear the BIOS CMOS, or **Cancel** to return to the BIOS UI.

Restore Manufacturing Custom Settings

Before you begin

You must log in with admin privileges to perform this task.

Procedure

Step 1   In the **BIOS** tab, click the **Restore Manufacturing Custom Settings** link.

Step 2   In the dialog box, click **OK** to proceed, or **Cancel** to return to the BIOS UI.

Restore Defaults

Procedure

Step 1   In the **BIOS** tab, click the **Restore Defaults** link.

Step 2   In the dialog box, click **OK** to proceed and reboot the host, or **Cancel** to return to the BIOS UI.

Configuring Advanced BIOS Settings

Before you begin

You must log in with admin privileges to perform this task.

Procedure

Step 1   In the **Navigation** pane, click the **Compute** menu.

Step 2   In the work pane, click the **BIOS** tab.

Step 3   Click the **Configure BIOS** tab.

Configuring Server Management BIOS Settings

Procedure

Step 1   In the **Configure BIOS** tab, click **Server Management**.

Step 2   Specify whether the server should be rebooted after you save your changes.

If you want your changes applied automatically after you click **Save**, check the **Reboot Host Immediately** check box. The server reboots immediately and the changes are applied.

If you want to apply your changes at a later time, unchceck the **Reboot Host Immediately** check box. CIMC stores the changes and applies them the next time the server reboots.

Note   If there are existing BIOS parameter changes pending, CIMC automatically overwrites the stored values with the current settings when you click **Save**.

Step 3   In the **Server Management** tab, update the relevant fields. The following fields are available:

Name	Description
Baud rate drop-down	What BAUD rate is used for the serial port transmission speed. If you disable Console Redirection, this option is not available. This can be one of the following: • **9.6k**—A 9600 BAUD rate is used. • **19.2k**—A 19200 BAUD rate is used. • **38.4k**—A 38400 BAUD rate is used. • **57.6k**—A 57600 BAUD rate is used. • **115.2k**—A 115200 BAUD rate is used.
Console redirection drop-down	This can be one of the following: • COM 0 • COM 1 • Disabled
Flow Control drop-down	Whether a handshake protocol is used for flow control. Request to Send / Clear to Send (RTS/CTS) helps to reduce frame collisions that can be introduced by a hidden terminal problem. This can be one of the following: • **None**—No flow control is used. • **RTS-CTS**—RTS-CTS is used for flow control.
Terminal type drop-down	This can be one of the following: • **PC-ANSI**—The PC-ANSI terminal font is used. • **VT100**—A supported VT100 video terminal and its character set are used. • **VT100-PLUS**—A supported vt100-plus video terminal and its character set are used. • **VT-UTF8**—A video terminal with the UTF-8 character set is used.
Boot Order Rules drop-down	This can be one of the following: • CIMC-config • BIOS-menu

Name	Description
OS Watchdog Timer drop-down	This can be one of the following: • Enabled • Disabled
OS Watchdog Timer Policy drop-down	This can be one of the following: • Power Off • Reset
OS Watchdog Timer Timeout drop-down	This can be one of the following: • 5 minutes • 10 minutes • 15 minutes • 20 minutes
FRB 2 Timer drop-down	This can be one of the following: • Enabled • Disabled

Step 4   Click **Save** to save your changes, or **Reset** to restore the previous values for all parameters.

Configuring BIOS Security

Procedure

Step 1   In the **Configure BIOS** tab, click **Security**.

Step 2   Specify whether the server should be rebooted after you save your changes.

If you want your changes applied automatically after you click **Save**, check the **Reboot Host Immediately** check box. The server reboots immediately and the changes are applied.

If you want to apply your changes at a later time, unchceck the **Reboot Host Immediately** check box. CIMC stores the changes and applies them the next time the server reboots.

Note   If there are existing BIOS parameter changes pending, CIMC automatically overwrites the stored values with the current settings when you click **Save**.

Step 3   In the **Security** tab, update the relevant fields. The following fields are available:

Name	Description
Trusted Platform Module State drop-down	Trusted Platform Module (TPM) is a microchip designed to provide basic security-related functions primarily involving encryption keys. This option allows you to control the TPM Security Device support for the system. It can be one of the following: • **Disabled** • **Enabled** **Note** Contact your operating system vendor to make sure the operating system supports this feature.
TPM Pending Operation drop-down	Displays TPM pending operations. It can be one of the following: • **None**—No pending operation. • **TPM Clear**—Clears the TPM.

Step 4   Click **Save** to save your changes, or **Reset** to restore the previous values for all parameters.

Configuring BIOS I/O

Procedure

Step 1   In the **Configure BIOS** tab, click **I/O**.

Step 2   Specify whether the server should be rebooted after you save your changes.

If you want your changes applied automatically after you click **Save**, check the **Reboot Host Immediately** check box. The server reboots immediately and the changes are applied.

If you want to apply your changes at a later time, unchceck the **Reboot Host Immediately** check box. CIMC stores the changes and applies them the next time the server reboots.

Note   If there are existing BIOS parameter changes pending, CIMC automatically overwrites the stored values with the current settings when you click **Save**.

Step 3   In the **I/O** tab, update the relevant fields. The following fields are available:

Name	Description
USB Port 0 Support drop-down	This can be one of the following: • Enabled • Disabled

Name	Description
USB Port 1 Support drop-down	This can be one of the following: • Enabled • Disabled
IPv6 PXE Support drop-down	This can be one of the following: • Enabled • Disabled
Network Stack drop-down	This can be one of the following: • Enabled • Disabled **Note** — Network Stack must be enabled to configure IPv4/IPv6 PXE support. If Network Stack is disabled, PXE is also disabled.
IPv4 PXE Support drop-down	This can be one of the following: • Enabled • Disabled

Step 4   Click **Save** to save your changes, or **Reset** to restore the previous values for all parameters.

Configuring the Processor

Procedure

Step 1   In the **Configure BIOS** tab, click **Processor**.

Step 2   Specify whether the server should be rebooted after you save your changes.

If you want your changes applied automatically after you click **Save**, check the **Reboot Host Immediately** check box. The server reboots immediately and the changes are applied.

If you want to apply your changes at a later time, unchceck the **Reboot Host Immediately** check box. CIMC stores the changes and applies them the next time the server reboots.

Note   If there are existing BIOS parameter changes pending, CIMC automatically overwrites the stored values with the current settings when you click **Save**.

Step 3   In the **Processor** tab, update the relevant fields. The following fields are available:

Name	Description
Package C State drop-down	This can be one of the following: • Auto • C0 C1 State • C2 • C6 Non Retention
Cores Enabled drop-down	This can be one of the following: • Values 1 through 10 • All

Step 4   Click **Save** to save your changes, or **Reset** to restore the previous values for all parameters.

Managing the Server Boot Order

When you change the boot order configuration, CIMC sends the configured boot order to BIOS the next time that server is rebooted. To implement the new boot order, reboot the server after you make the configuration change. The new boot order takes effect on any subsequent reboot. The configured boot order remains until the configuration is changed again in or in the BIOS setup.

The server boot order is the boot order actually used by BIOS when the server last booted. The actual boot order can differ from the boot order configured in CIMC.

Note   The actual boot order differs from the configured boot order if either of the following conditions occur:

• BIOS does not detect a boot option in the configured boot order.

• A user changes the boot order directly through BIOS, by configuring Boot Order Rules for the BIOS menu.

Procedure

Step 1   In the **BIOS** tab, click the **Configure Boot Order** tab.

This area displays the boot order devices configured through Cisco IMC, as well as the actual boot order used by the server BIOS.

Step 2   The **Configured Boot Devices** section displays the boot order configured through Cisco IMC. If this configuration changes, Cisco IMC sends this boot order to BIOS the next time that server boots.

Configuring the Boot Order

Before you begin

You must log in as a user with admin privileges to add device types to the server boot order.

Procedure

Step 1   In the **BIOS** tab, click the **Configure Boot Order** tab.

Step 2   Click the **Configure Boot Order** button.

Step 3   In the **Configure Boot Order** dialog box, update the relevant fields. The following fields are available:

Name	Description
Device Types column	Displays the device types from which this server can boot.
Boot Order column	Displays the order in which the boot is attempted.
Left and **Right** arrow buttons	Move the selected devices to and from the Boot Order column.
Up and **Down** buttons	Move the selected devices up or down in the Boot Order column.

Step 4   Click **Save Changes** to save your changes, or **Close** to close the dialog box without saving the changes.

Cisco IMC sends these changes to BIOS the next time that server boots. To have these changes take effect immediately, reboot the server. You can verify the new boot order by refreshing the **BIOS** tab.

Configuring Power Policies

The power restore policy determines how power is restored to the server after a chassis power loss.

Before you begin

You must log in with admin privileges to perform this task.

Procedure

Step 1   In the **Navigation** pane, click the **Compute** menu.

Step 2   In the **Compute** menu work pane, click the **Remote Management** tab.

Step 3   Enter the required information:

Name	Description
Power Restore Policy drop down	Provides options for the power restore policy. • **Power Off** • **Restore Last State**

Step 4   Click **Save Changes** to save your changes, or **Reset Values** to reset the parameters to previous values.