Quick Reference

# Cisco Host Upgrade Utility Release 1.2(x) Quick Start Guide

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# Cisco Host Upgrade Utility

## Overview

The Cisco Host Upgrade Utility is a tool that upgrades the following firmware:

- Cisco Integrated Management Controller (CIMC)
- System BIOS
- LAN on motherboard (LOM)
- LSI (for any third-party LSI storage controllers that are installed)
- Cisco UCS P81E Virtual Interface Card (VIC)

The image file for the firmware is embedded in the ISO. The utility displays a menu that allows you to choose which firmware components to upgrade. After the upgrade, you can also choose whether to reboot with existing CIMC settings or with CIMC settings customized for Cisco Unified Computing System (UCS) integration.

## Requirements and Support

### Requirements

This utility supports firmware upgrades for C-Series servers. When launched, this utility determines the server model, then checks for the minimum required firmware level as listed in the table below.

| Server | Minimum CIMC and BIOS Version Required to Use This Utility |
|---|---|
| C200 | 1.2(1a) |
| C210 | 1.2(1a) |
| C250 | 1.2(1a) |

### Support

This utility checks for and then updates firmware for the following LOM and LSI controller devices in each server:

| Server | LOM Device | LSI Controller |
|---|---|---|
| C200 | Intel 82576 | 1064E<br>8708<br>9260-4i<br>9261 |

| Server | LOM Device | LSI Controller |
|---|---|---|
| C210 | Intel 82576 | 1064E<br>8708<br>9261<br>9260-4i |
| C250 | Broadcom BCM5709 | 3081<br>9261 |

# Using the Utility

You can use the utility ISO to upgrade components of the server from the host locally with a writable disk (DVD or CD) or remotely by mounting the utility ISO as a virtual device.

### Procedure

**Step 1** Find the ISO file download for your server online and download it to a temporary location on your workstation:

a) Navigate to the following URL: http://www.cisco.com/cisco/software/navigator.html.
b) Click **Unified Computing and Servers** in the middle column.
c) Click **Cisco UCS C-Series Rack-Mount Standalone Server Software** in the right-hand column.
d) Click the name of your model of server in the right-hand column.
e) Click **Unified Computing System (UCS) Server Firmware**.
f) Click the **1.2** release number.
g) Click **Download Now** to download the `standalone-host-utilities.1.2.2.<version>.zip` file.
h) Verify the information on the next page, then click **Proceed With Download**.
i) Continue through the subsequent screens to accept the license agreement and browse to a location where you want to save the `standalone-host-utilities.<version>.zip` file.

**Step 2** Extract the contents of the `standalone-host-utilities.<version>.zip` file. Note the location to which the `hostUpgrade_<version>.iso` file is saved.

**Step 3** If you want to prepare the ISO for a local upgrade, complete this step. Otherwise go to Step 4, page 3.

a) Burn the ISO image onto a writable disk (DVD or CD).
b) Connect a VGA monitor and USB keyboard to the Cisco C-Series server.
c) Insert the disk into the DVD drive of the Cisco C-Series server.
d) Go to Step 5, page 4.

**Step 4** Prepare the ISO a remote upgrade.

a) Use a browser to connect to the CIMC Manager software on the server that you are upgrading.
b) Enter the CIMC IP address for that server in the address field of the browser, then enter your user name and password.
c) Click the **Launch KVM Console** button in the toolbar to launch the KVM console.
d) The way you access virtual media depends on the version of the KVM Console that you are using. If the **KVM Console** dialog box has a **VM** tab, click on that tab. Otherwise, select **Tools ➤ Launch Virtual Media** .
e) Click **Add Image** and use the dialog to select the `hostUpgrade_<version>.iso` file you extracted from `standalone-host-utilities.<version>.zip`.

f) In the **Client View** section, check the check box in the **Mapped** column for the ISO file that you added and then wait for mapping to complete.
The KVM displays the progress in the **Details** section.

g) After the ISO file appears as a mapped remote device, go to Step 5, page 4.

**Step 5** Boot the server and press F6 when prompted to open the **Boot Menu** screen.

**Step 6** On the **Boot Menu** screen, select the prepared ISO:

- For a local upgrade, select the physical CD/DVD device and then press Enter. For example, SATA5:TSSTcorp CDDVDW TS-L633C.
- For a remote upgrade, select **Cisco Virtual CD/DVD** and press Enter.

The server reboots from the selected device.

**Step 7** The server displays a screen with the server BIOS and CIMC firmware versions. At the **"Have you read the Cisco EULA" (end user license agreement)?** prompt:

- Press y to accept the EULA and continue the update.
- Press n to read the EULA. The EULA is displayed and you are prompted to press y to continue the update, or n to cancel. If you press n, the server will reboot without updating.
- Press q to exit without updating. This selection reboots the server.

After you accept the EULA, the server displays the **Host Upgrade Menu**.

**Step 8** On the **Host Upgrade Menu**, enter one of the following numbers at the `Enter Choice` prompt:

| Option | Description |
|---|---|
| | In prior versions of the utility, the server inventory was displayed immediately after you accept the EULA. With 1.4 release, after accepting the EULA, the Host Upgrade Menu is displayed. To view server inventory details, enter 0. |
| **1. Update CIMC Firmware - <*version*>** | The utility selects the correct CIMC firmware for your server and then performs the upgrade.<br>Wait until you see confirmation that the upgrade was successful, then either select another option from this menu or go to Step 9, page 5.<br>**Note** We recommend you always upgrade the BIOS when you upgrade the CIMC firmware. |
| **2. Update BIOS** | The utility selects the correct BIOS firmware for your server and then performs the upgrade.<br>Wait until you see confirmation that the upgrade was successful, then either select another option from this menu or go to Step 9, page 5.<br>**Note** We recommend you always upgrade the CIMC firmware when you upgrade the BIOS. |
| **3. Update LOM Firmware** | The utility selects the correct LOM firmware for your server and then performs the upgrade. The updated image reverts LOM firmware settings back to factory defaults.<br>Wait until you see confirmation that the upgrade was successful, then either select another option from this menu or go to Step 9, page 5.<br>**Note** It is possible that some older systems might fail the PHY link upgrade. If this happens, power cycle the server and try the LOM update again. |

| Option | Description |
|---|---|
| **4. Update LSI Firmware** | The utility checks for any installed and supported LSI storage controller cards, selects the correct LSI firmware, and then performs the upgrade.<br>Wait until you see confirmation that the upgrade was successful, then either select another option from this menu or go to Step 9, page 5.<br>**Note** These upgrades take place after the server reboots. |
| **5. Update UCS P81E VIC** | The utility checks for any installed Cisco UCS P81E Virtual Interface Cards (VICs), selects the correct firmware, and then performs the upgrade.<br>**Note** If you intend to use a server with a P81E VIC in UCSM mode for UCS integration, this VIC must be at minimum firmware level 1.4(1i) or later.<br>Wait until you see confirmation that the upgrade was successful, then either select another option from this menu or go to Step 9, page 5. |
| **8. All the above** | The utility selects the correct firmware components for your server and then upgrades the CIMC, BIOS, LOM, LSI, P81E VIC firmware, and in that order.<br>Wait until you see confirmation that the upgrade was successful, then go to Step 9, page 5. |

**Step 9** After all upgrades are successful, select the appropriate CIMC settings to use during the reboot from the **Host Upgrade Menu**.

| Option | Description |
|---|---|
| **10. Reboot (Retains current settings of CIMC)** | The utility reboots the server with your existing CIMC settings. Use this selection if you are upgrading a standalone server that you want to continue using in standalone mode with your current settings.<br>**Note** This reboot will end connection with the CIMC and you must log in again to re-establish connection to the CIMC and reopen any KVM session that you had open. |
| **10. Reboot (Configures CIMC to UCSM mode - default factory settings)** | The utility reboots the server with UCSM mode settings. This mode allows integration with the Cisco UCS environment.<br>**Note** This option is not currently available for the Cisco UCS C460 server.<br>To connect the server to your Cisco UCS environment, see the instructions for server integration with the Cisco UCS environment in the *Installation and Service Guide* for your server: http://www.cisco.com/en/US/products/ps10493/prod_installation_guides_list.html |

**Note** Option enables DHCP, Active-Active NIC redundancy, and Shared LOM NIC mode, which enables CIMC control through the 1Gb LOM ports rather than the management port. Any static IP addresses and the management port are disabled, so you lose connection with the CIMC and you must log in again to re-establish connection to the CIMC and then reopen any KVM session that you had open.

After you select option or , the server reboots. If you upgraded the CIMC firmware, the new firmware version is activated during this reboot.

**Step 10** (Optional) If you updated the LOM firmware, you must fully power cycle the server. You can do this by:

- Unplugging the power cords from all power supplies for a few moments and then reattaching them.
- Using your APC device to shut off power to the server and then restore it.

# Troubleshooting

The following table describes troubleshooting suggestions for issues that you might encounter.

| Issue | Suggested Solution |
|---|---|
| Connection to CIMC is lost after an update and reboot and the KVM session ends. | This is expected behavior after a firmware update. Log back in to the CIMC and reestablish your KVM session. |
| KVM console screen goes blank when it is idle during an upgrade. | Select **View ➤ Refresh** from the menu in the **KVM** tab to return the display to the screen. |

### Error Codes

If the update fails, one of the following error codes is displayed on the screen as `Failed (xx)`, where *xx* is one of the values below.

You can use these error codes when you report the problem to Cisco Technical Support.

| Code | Reason for Failure |
|---|---|
| 14 | Initialization failed |
| 16 | NIC is not supported |
| 18 | NVRAM update failed |
| 20 | NVRAM image checksum failed |
| 26 | Incorrect NVRAM file format |
| 73 | Feature not supported on this platform |
| 96 | Invalid NCSI image |

# Additional Information

## Related Documentation

For a complete list of all C-Series documentation, see the *Cisco UCS C-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/c-series-doc .

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation.

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