



Upgrading the Cisco Remote-PHY Solution

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Upgrading the Cisco CMC Image through the Cisco CMTS

The Cisco CMC consists of the following three images:

- Golden image
- Bank 1 image
- Bank 2 image

Golden Image

The image on the Cisco CMC that is downloaded as part of the factory settings is called the golden image. This image is read-only and cannot be deleted or replaced using the CLI. This image supports only the Cisco CMC image upgrade and does not support the other features.

Bank 1 and Bank 2 Images

The non-golden images on the Cisco CMC that support all the features are called the bank 1 and bank 2 images. These images can be copied to or deleted from the Cisco CMC. When the Cisco CMC image is upgraded, the bank 1 and bank 2 images are upgraded alternately. That is, if the last upgraded image is the bank 1 image, then the bank 2 image is upgraded with the current upgrade, and vice versa. When the image (non-golden) upgrade fails, the Cisco CMC tries to boot with the image from the other bank. If the images from both the banks fail, the Cisco CMC boots with the golden image.

Before You Begin

Before upgrading the Cisco CMC image through the Cisco CMTS, you must specify the TFTP or FTP server address and full file path in the DHCP server.

If you are using a Cisco Network Registrar as the DHCP server, you must specify the values for the following fields:

- *packet-file-name*
- *packet-server-name*

For more information on the Cisco Network Registrar, see [Cisco Network Registrar](#).

The figure below shows an example of how to specify the values in the Cisco Network Registrar:

Figure 1: Specifying the Values on Cisco Network Registrar

Attribute	Value	Data Type
v4-reply-options		dhcpv4 option list
v4-bootp-reply-options		dhcpv4 option list
1 → packet-file-name	/ftp/CMC/sw_pre_reless	string
2 → packet-server-name	ftp://server:server123	string
packet-siaddr		IP address
allow-client-a-record-update	<input type="radio"/> enabled <input type="radio"/> disabled	boolean
allow-dual-zone-dns-update	<input type="radio"/> enabled <input type="radio"/> disabled	boolean

1	Specify the new image file name and its full path
2	Specify the TFTP or FTP server address where the new image is located

Restriction

While upgrading the software images on Cisco CMTS and Cisco CMC, upgrade the Cisco CMC first, and then upgrade the Cisco CMTS.



Important If the Cisco CMTS is upgraded before the Cisco CMC, the Cisco CMC may not come online.

Step 1 Enable the privileged EXEC mode using the **enable** command. Enter your password, if prompted.

Example:

```
Router> enable
```

Step 2 Upgrade the Cisco CMC image using the **cable cmc mac-address image_upgrade** command. *mac-address*—MAC address of the Cisco CMC.

Example:

```
Router# cable cmc 0001.0002.0003 image_upgrade
```

What to Do Next

If you are unable to upgrade the Cisco CMC image through Cisco CMTS, upgrade it through the Cisco CMC console. For more information, see [Upgrading the Cisco CMC Image through the Cisco CMC Console](#), on page 3.

Upgrading the Cisco CMC Image through the Cisco CMC Console



Important Perform this procedure only if you are unable to upgrade the Cisco CMC image through the Cisco CMTS.

Restriction

While upgrading the software images on Cisco CMTS and Cisco CMC, upgrade the Cisco CMC first, and then upgrade the Cisco CMTS.



Important If the Cisco CMTS is upgraded before the Cisco CMC, the Cisco CMC may not come online.

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- Step 1** Open the Cisco CMC lid. See [Opening the Cisco CMC](#).
- Step 2** Connect the console cable to the Cisco CMC console port and connect the other end of the console cable to a computer. See [Using the Console Port on the Cisco CMC](#).
- Step 3** Log in to the Cisco CMC console using telnet with username **admin** and password **admin**.
- Note** Use a baud rate of 115200.
- Step 4** Enable the privilege mode on the Cisco CMC using the **enable** command. Enter your password, if prompted.
- Example:**
CMC> **enable**
- Step 5** Upgrade the Cisco CMC image using the **upgrade system url** command.
url—Firmware path, where the image is available.
- Tip** The firmware path is case-sensitive.
- Note** If the image version available on the specified firmware path is the same as the image running on the Cisco CMC currently, the Cisco CMC does not upgrade the image.
- Example:**
CMC# **upgrade system tftp://192.168.1.1/image-1.1.bin**
- Step 6** After the image upgrade is completed, disconnect the console cable from the Cisco CMC console port.
- Step 7** Close the Cisco CMC lid. See [Closing the Cisco CMC](#).
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