Host Image Mapping for E-series Servers

- Host Image Mapping, on page 1
- Adding a Network Host Image Mapping Profile, on page 2
- Creating an Upload Profile for Host Image Mapping, on page 4
- Creating a Cisco.com Profile for Host Image Mapping, on page 6
- Applying a Host Image Profile, on page 9
- Downloading a Firmware Image, on page 9
- Running a Host Image Upgrade Manually, on page 10
- Deleting a Downloaded Image, on page 11
- Mapping and Unmapping a Host Image, on page 11
- Viewing Status Details of a Host Image Profile, on page 12
- Deleting a Host Image Mapping Profile, on page 12
- Configuring Proxy Settings, on page 13

Host Image Mapping

Host Image Mapping is a commonly used feature for the E-Series servers which allows you to download a firmware file to Cisco IMC, and upgrade the firmware. Using Cisco UCS Director, you can create a host image mapping profile to download and upgrade either one of the following:

- ISO firmware image
- CIMC image or
- BIOS image

You can download the firmware image on Cisco IMC in one of the following methods:

- Provide a location on the network (an FTP, FTPS, HTTP or HTTPS server) where the firmware file is currently available.

  For more information, see Adding a Network Host Image Mapping Profile, on page 2

- Choose the firmware file from a location on your system.

  For more information, see Creating an Upload Profile for Host Image Mapping, on page 4

- Download the firmware image from www.cisco.com.

  For more information, see Creating a Cisco.com Profile for Host Image Mapping, on page 6

Important To perform these tasks, Cisco IMC version 3.2.4 must be installed on the E-series servers. This feature does not work with prior versions of Cisco IMC.

For information on creating a profile to upgrade the firmware, see Adding a Network Host Image Mapping Profile, on page 2.

Adding a Network Host Image Mapping Profile

Before you begin

You should have created rack accounts for UCS E-series servers in the system.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Choose **Network Profile**.

Click this button if you have downloaded the firmware image from a location on the network.

Step 4 On the **Create Host Image Mapping Profile - Network** screen, complete the required fields, including the following:

Field	Description
Profile Name field	A descriptive name for the profile.
Platform drop-down list	Choose a server platform. While applying this profile, the list of available servers is populated based on the platform you select in this drop-down list. **Attention** This drop-down list is populated by the rack accounts that you have created for UCS E-series servers.
Download Image From drop-down list	Select the type of server where the firmware image is available. It can be one of the following: • FTP Server • FTPS Server • HTTP Server • HTTPS Server
Server IP Address field	IP address of the server.

File Path field	The path to the location where the fimware file is available.
File Type drop-down list	Choose the file type of the image. It can be one of the following: • **ISO** • **CIMC** • **BIOS**
File Name field	Enter the name of the file.
User name field	The user name. **Note** This field is only displayed when you select **FTP Server** or **FTPS Server** in the **Download Image From** drop-down list.
Password field	The user password. **Note** This field is only displayed when you select **FTP Server** or **FTPS Server** in the **Download Image From** drop-down list.
Map After Download check box	Maps the downloaded image. **Important** This check box is displayed only if you selected **ISO** in the **File Type** drop-down list. You can map the image while creating the profile, or you can map the image at a later point in time. Mapping an ISO image is mandatory for initiating an upgrade on the server. If you have not mapped the image on the server, and attempt to upgrade the firmware, an error message stating that the image is not mapped is displayed.For information on mapping an image in this scenario, see Mapping and Unmapping a Host Image, on page 11.
Delete All Existing Images check box	Deletes all the currently downloaded images available in Cisco IMC of the server chosen for the firmware upgrade.

Run Upgrade After Download check box	Check this check box if you want to initiate the upgrade process immediately after the firmware file is downloaded. If you prefer to initiate the upgrade process manually at a later time, then do not check this check box. To run this process at a later time, see Running a Host Image Upgrade Manually, on page 10. **Important** If you chose **ISO** in the **File Type** drop-down list, and if you check this check box, then you must also check the **Map After Download** check box to proceed. By checking both these check boxes, the firmware file is downloaded and mapped to Cisco IMC.

Step 5 Click **Submit**.

What to do next

After creating a profile, you must select a server on which this profile must run on. For more information, see Applying a Host Image Profile, on page 9.

Following are some of the other actions you can perform after creating a profile:

- Edit or delete a profile
- View status information for a profile
- Initiate the upgrade process if not previously indicated while creating the profile.

Creating an Upload Profile for Host Image Mapping

Follow this procedure to upload a firmware file from your system to Cisco IMC.

Before you begin

You should have created rack accounts for UCS E-series servers in the system.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Choose **Upload Profile**.

Step 4 In the **Create Host Image Mapping Profile – Upload** screen, complete the required fields including the following:

Field	Description
Profile Name field	A descriptive and unique name for the profile. The profile name must be unique.
Platform drop-down list	Choose a platform from the drop-down list. While applying this profile, the list of available servers is populated based on the platform you select in this drop-down list **Attention** This drop-down list is populated by the rack accounts that you have created for UCS E-series servers.
File Type drop-down list	Choose the file type of the image. It can be one of the following: • ISO • CIMC • BIOS
File Name field	Click **Select a File** to browse for and select a file from your system.
Map After Download check box	Maps the downloaded image. **Important** This check box is displayed only if you selected **ISO** in the **File Type** drop-down list. You can map the image while creating the profile, or you can map the image at a later point in time. Mapping an ISO image is mandatory for initiating an upgrade on the server. If you have not mapped the image on the server, and attempt to upgrade the firmware, an error message stating that the image is not mapped is displayed.For information on mapping an image in this scenario, see Mapping and Unmapping a Host Image, on page 11.
Delete All Existing Images check box	Deletes all the currently downloaded images available in Cisco IMC of the server chosen for the firmware upgrade.

Field	Description
Run Upgrade After Download check box	Check this check box if you want to initiate the upgrade process immediately after the firmware file is downloaded. If you prefer to initiate the upgrade process manually at a later time, then do not check this check box. To run this process at a later time, see Running a Host Image Upgrade Manually, on page 10. **Important** If you chose **ISO** in the **File Type** drop-down list, and if you check this check box, then you must also check the **Map After Download** check box to proceed. By checking both these check boxes, the firmware file is downloaded and mapped to Cisco IMC.

Step 5 Click **Submit**.

What to do next

After creating a profile, you must select a server on which this profile must run on. For more information, see Applying a Host Image Profile, on page 9.

Following are some of the other actions you can perform after creating a profile:

- Edit or delete a profile
- View status information for a profile
- Initiate the upgrade process if not previously indicated while creating the profile.

Creating a Cisco.com Profile for Host Image Mapping

Complete this procedure to create a profile to download an image from www.cisco.com.

Before you begin

- You should have configured the Cisco.com user credentials. For more information, see Configuring Your Cisco User Account
- You should enabled proxy configuration on the system. For more information, see Configuring Proxy Settings, on page 13

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Choose **CCO Profile**.

Step 4 In the **Create Host Image Mapping Profile - CCO** screen, complete the required fields, including the following:

Field	Description
Profile Name field	A descriptive and unique name for the profile. The profile name must be unique.
Proxy Configuration check box	Indicates if the proxy settings have been configured or not. If the check box is checked, it implies that the proxy settings have been configured.
Platform drop-down list	Choose a platform from the drop-down list. While applying this profile, the list of available servers is populated based on the platform you select in this drop-down list **Attention** This drop-down list is populated by the rack accounts that you have created for UCS E-series servers.
Download Now check box	Check this check box to initiate the download of the firmware image immediately after you create the profile. If you do not check this check box now, you can download the image at a later point in time. To do so, choose the profile name in the **Host Image Mapping** screen, and from the **More Actions** drop-down list, choose **Download Image**. After the image is downloaded, you must apply the profile. For more information, see Applying a Host Image Profile, on page 9.
Available Image drop-down list	Choose the image from the drop-down list. This list is populated with images relevant to the server platform you chose in the **Platform** drop-down list.

Field	Description
Map After Download check box	Maps the downloaded image. **Important** This check box is displayed only if you selected **ISO** in the **File Type** drop-down list. You can map the image while creating the profile, or you can map the image at a later point in time. Mapping an ISO image is mandatory for initiating an upgrade on the server. If you have not mapped the image on the server, and attempt to upgrade the firmware, an error message stating that the image is not mapped is displayed.For information on mapping an image in this scenario, see Mapping and Unmapping a Host Image, on page 11.
Delete All Existing Images check box	Deletes all the currently downloaded images available in Cisco IMC of the server chosen for the firmware upgrade.
Run Upgrade After Download check box	Check this check box if you want to initiate the upgrade process immediately after the firmware file is downloaded. If you prefer to initiate the upgrade process manually at a later time, then do not check this check box. To run this process at a later time, see Running a Host Image Upgrade Manually, on page 10. **Important** If you chose **ISO** in the **File Type** drop-down list, and if you check this check box, then you must also check the **Map After Download** check box to proceed. By checking both these check boxes, the firmware file is downloaded and mapped to Cisco IMC.

Step 5 Click **Submit**.

What to do next

After creating a profile, you must select a server on which this profile must run on. For more information, see Applying a Host Image Profile, on page 9.

Following are some of the other actions you can perform after creating a profile:

- Edit or delete a profile
- View status information for a profile
- Initiate the upgrade process if not previously indicated while creating the profile.
- Download an image if not previously downloaded while creating the profile.

- Delete a downloaded image.

Applying a Host Image Profile

After creating a host image mapping profile, you can select a server on which:

- A profile can be run to download the image to Cisco IMC or
- firmware upgrade must be initiated immediately, provided you selected the **Run Upgrade After Download** check box while creating the profile.

Note If you do not apply a host image profile, then blank reports are generated when you choose the **View Status** option. Also, you cannot initiate a firmware upgrade without applying a profile, or when the Apply Host Image Profile action is in progress.

Before you begin

You should have created a host image mapping profile in the system.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Select a profile from the table and click **Apply**.

Alternatively, you can select and profile, and choose **Apply** from the **More Actions** drop-down list.

Step 4 In the **Apply Profile** screen, click **Select** to select the servers on which this firmware image must be applied on.

You can select multiple servers. The list of servers is populated based on the server platforms you selected while creating the profile.

Step 5 Click Select to return to the **Apply Profile** screen.

Step 6 Click **Submit**.

Downloading a Firmware Image

Complete this procedure to download a firmware image on the Cisco IMC of the server.

Before you begin

- You have created a Cisco.com profile for downloading the firmware image.
- While creating the profile, you have not checked the Download Now check box.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Choose a CCO profile from the list of profiles.

Step 4 From the **More Actions** drop-down list, choose **Download Image**.

Step 5 In the **Download Image** screen, review the information displayed and click **Download**.

The firmware image specified in the profile is downloaded from Cisco.com using the Cisco.com credentials that you configured.

What to do next

At a later point in time, you can delete the image that you have downloaded. For more information, see Deleting a Downloaded Image, on page 11.

Running a Host Image Upgrade Manually

While creating a host image mapping profile, if you did not check the Run Upgrade After Download check box, then you manually initiate the upgrade process by completing the following procedure.

Before you begin

You should have created a host image mapping profile in the system.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Choose **Run Upgrade**.

Step 4 In the **Upgrade Host Image** screen, complete the required fields, including the following:

Field	Description
Select Profile drop-down list	Choose a profile. After you choose a profile, the details of the profile are displayed on the screen.
Servers field	Click **Select** to choose the servers on which the upgrade must be run.

Field	Description
Schedule Later check box	Check this check box and select an existing schedule to upgrade the server at a later time, or click + to create a new schedule. For information on creating a new schedule, see Creating Schedules.

Step 5 Click **Submit**.

Deleting a Downloaded Image

While creating a Cisco.com profile, you can choose to download the firmware image immediately after creating the profile, or you can download it at a later point in time. After an image is downloaded, you can delete it from the Cisco UCS Director. This option is only available for images downloaded with the Cisco.com profile.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.
Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.
Step 3 Choose the CCO profile from the list of created profiles.
Step 4 From the **More Actions** drop-down list, choose **Delete Image**.
Step 5 In the **Delete Image(s)** screen, click **Delete**.

Mapping and Unmapping a Host Image

Complete this procedure to map or unmap a host image on a specific Cisco IMC server. You can map and unmap only an ISO host image. For other host images such as BIOS and CIMC, you can only delete them from this screen.

Before you begin

You should have created a host image mapping profile in the system.

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the pod.
Step 3 Choose the **Rack Servers** tab.

Step 4 Double-click the server in the list to view the details, or select **View Details** from the **More Actions** drop-down list.

Step 5 Choose the **Host Images** tab.

The screen lists all the images that are available on the Cisco IMC server.

Step 6 Choose an ISO host image and select **Map Image** or **Unmap Image** or **Delete Image**.

From this screen, you can only select **Delete Image** for BIOS and CIMC images.

Viewing Status Details of a Host Image Profile

Before you begin

You should have created a host image mapping profile in the system.

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Select a profile from the table and choose **View Status Details** from the **More Actions** drop-down list.

You can also select a profile from the table and right-click to choose **View Status Details**.

The **View Host Image Mapping Profile Status** screen displays the following information:

- Profile name
- Server IP address
- Download status
- Upgrade status

  The status information is displayed for an upload profile and for a Cisco.com profile.

Note If you chose a BIOS file to upgrade the firmware, then you must wait for about 3-4 minutes for the changes to reflect in the Cisco IMC of that server.

Deleting a Host Image Mapping Profile

Procedure

Step 1 Choose **Administration** > **Physical Accounts**.

Step 2 On the **Physical Accounts** page, click **Host Image Mapping**.

Step 3 Select a profile from the table and click **Delete Profile**.

Step 4 In the **Delete Profile** screen, click **Delete**.

The profile is deleted from the system.

Configuring Proxy Settings

Perform this procedure when you want to configure proxy settings.

Procedure

Step 1 Choose **Administration** > **System**.

Step 2 On the **System** page, click **Proxy Configuration**.

Step 3 Complete the required fields, including the following, to configure proxy on the system:

Field	Description
Enable Proxy Configuration check box	(Optional) Check this check box to enable proxy and complete the following: • **Host Name** field - Enter a host name for the proxy configuration. • **Port** field - Enter the port for the proxy configuration.
Enable Proxy Authentication check box	(Optional) Check this check box to enable proxy authentication and complete the following: • **Proxy User Name** field - Enter a proxy user name for the proxy authentication. • **Proxy Password** field - Enter the password for the proxy user name.

Step 4 Click **Save**.