



# Managing Firmware Upgrades

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## About Upgrading Firmware on Rack Servers

In Cisco UCS Director, you can create firmware upgrade profiles and then use these profiles to upgrade the firmware on rack servers. You can create the following types of firmware upgrade profiles:

- Profile for locally stored firmware images.

For more information on creating this profile, see [Adding Images to a Local Cisco UCS Director System, on page 1](#).

- Profile for firmware images stored on the network.

For more information on creating this profile, see [Adding Images from a Network Server, on page 4](#)

## Adding Images to a Local Cisco UCS Director System



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**Note** Starting with Cisco UCS Director 6.8(9.0), to download server firmware software from Cisco, you must activate your device first using **Activate Device** under the **Images – Local**. Then download server firmware software by clicking the + (plus) icon under **Images – Local**.

Device activation stays active for an hour post which re-activation is required to download software again from Cisco.

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## Procedure

- Step 1** Choose **Administration > Physical Accounts**.
- Step 2** On the **Physical Accounts** page, click **Images - Local**.
- Step 3** Click **Activate Device**. Follow the on-screen instructions.
- Step 4** Click **Add**.
- Step 5** In the **Add Firmware Image - Local** screen, complete the required fields, including the following:

Field	Description
<b>Profile Name</b> field	Enter a descriptive and unique profile name.  The profile name must be unique across both Local and Network image profiles.
<b>Proxy Configuration</b> check box	(Optional) Check this check box to enable proxy configuration and complete the following: <ul style="list-style-type: none"> <li>• <b>Host Name</b> field - Enter a host name for the proxy configuration.</li> <li>• <b>Port</b> field - Enter the port for the proxy configuration.</li> </ul>
<b>Platform</b> drop-down list	Choose a platform from the drop-down list.  This list displays only those platforms that have at least one server being managed.
<b>Available Image</b> drop-down list	Choose the .iso image from the drop-down list.
<b>Download Now</b> check box	Check this check box to download the .iso image immediately after adding a profile.
<b>Graceful Timeout</b> check box	Check this check box to specify a time period within which the host system must shutdown to initiate the firmware upgrade process.  <b>Note</b> You can configure graceful timeout for systems running Cisco IMC 3.1(3a) or higher.  If you do not provide a timeout period, then the system is forcibly shut down after 120 seconds.
<b>Timeout (in mins)</b> field	Specify a time period, in minutes, within which the host system must shutdown to initiate the firmware upgrade process.  You can specify a value between 0 and 60.
<b>Force Shutdown Server</b> check box	Check this check box to forcibly shut down the host system if it did not shut down within the time specified in the <b>Graceful Timeout (in mins)</b> field.  This option is enabled by default.

Field	Description
Accept License Agreement check box	<p>Check this check box to accept the license agreement.</p> <p>Click on the <b>Terms and Conditions</b> link to read the End User License Agreement.</p> <p><b>Note</b> You must accept the license agreement to create a firmware profile, irrespective of the time you choose to download the image.</p>

**Step 6** Click **Submit**.

- Note**
- You can click **View Location Details** to view profile configuration details, click **Modify** to modify the firmware image details, and click **Delete Profile** to delete the image profile. You can select multiple profiles concurrently and delete them.
  - For downloading the E-Series firmware images, you must associate a contract access to the cisco.com account.

## Uploading Images from a Local File System

Perform this procedure to upload iso images from your local file system to the system.

### Procedure

- Step 1** Choose **Administration > Physical Accounts**.
- Step 2** On the **Physical Accounts** page, click **Images - Local**.
- Step 3** Click **Upload** to add an image.
- Step 4** In the **Upload Firmware Image - Local** screen, complete the required fields, including the following:

Field	Description
Profile Name field	Enter a descriptive and unique profile name.
Platform drop-down list	Select the C-Series or E-Series platform.
File Name field	Choose <b>Browse</b> to search and select a file to upload on your local file system.

- Step 5** Click **Upload**.
- Step 6** Click **OK** in the **File Upload** confirmation screen, once the upload is complete.
- Step 7** Click **Close**.

- Note**
- You can view profile configuration details, modify the firmware image details, and delete the image profile. You can also select multiple profiles concurrently and delete them.
  - The **Delete Profile** option removes the image associated with the profile. If you uploaded a wrong image or if a file is no longer associated with a profile, a purge system task which runs periodically (once a month) will delete the files from the system.

## Adding Images from a Network Server

### Procedure

- Step 1** Choose **Administration > Physical Accounts**.
- Step 2** On the **Physical Accounts** page, click **Images - Network**.
- Step 3** Click **Add**.
- Step 4** In the **Add Firmware Image - Network** screen, complete the required fields, including the following:

Field	Description
<b>Profile Name</b> field	A descriptive and unique name for the profile. The profile name must be unique across both Local and Network image profiles.
<b>Platform</b> drop-down list	Choose a platform from the drop-down list.
<b>Mount Type</b> drop-down list	Choose either Network File System (NFS) or Common Internet File System (CIFS) server types.
<b>Remote IP</b> field	Enter remote IP address.
<b>Remote Share</b> field	Enter remote share path.
<b>Remote File Name</b> field	Enter a remote filename. <b>Note</b> The remote filename is the Unified Computing System (UCS) Server Configuration Utility ISO file.
<b>User Name</b> field	Enter a network path user name.
<b>Password</b> field	Enter a network path password.
<b>Graceful Timeout</b> check box	Check this check box to specify a time period within which the host system must shutdown to initiate the firmware upgrade process.
<b>Timeout (in mins)</b> field	Specify a time period, in minutes, within which the host system must shutdown to initiate the firmware upgrade process.

Field	Description
<b>Force Shutdown Server</b> check box	Check this check box to forcibly shut down the host system if it did not shut down within the time specified in the <b>Graceful Timeout (in mins)</b> field.  This option is enabled by default.

**Step 5** Click **Submit**.

**Note** You can click **View Location Details** to view profile configuration details, click **Modify** to modify the firmware image details, and click **Delete Profile** to delete the image profile. You can also select multiple profiles concurrently and delete them.

## Upgrading the Firmware Image

Perform this procedure when you want to upgrade firmware on a rack server.

### Procedure

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

**Step 2** On the **Physical Accounts** page, click **Firmware Upgrades**.

**Step 3** Click **Run Upgrade**.

A warning message stating that the firmware upgrade process will result in downtime of the hosts is displayed.

**Step 4** Click **OK** to confirm.

**Step 5** In the **Upgrade Firmware** screen, complete the following:

Field	Description
<b>Select Profile</b> drop-down list	Choose a profile from the drop-down list.
<b>Server(s)</b> list	Check the check boxes of the servers.  The list displays only those servers whose platform matches the one configured in the selected profile.
<b>Schedule later</b> check box	Check this check box and select an existing schedule to run an upgrade.  You can also click on + icon to create a new schedule. For more information on creating schedules, see <a href="#">Creating Schedules</a> . You can go to <b>Policies &gt; Manage Schedules</b> , select a schedule and click <b>View Scheduled Tasks</b> to verify the scheduled task and its progress. You can also select a scheduled task and click <b>Remove Scheduled Tasks</b> to remove the associated scheduled task.

**Step 6** Click **Submit**.

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## Deleting the Firmware Image

Perform this procedure when you want to delete only the firmware image and not the profile using which the firmware image was downloaded.

### Procedure

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- Step 1** Choose **Administration > Physical Accounts**.
- Step 2** On the **Physical Accounts** page, click **Images - Local**.
- Step 3** Select a profile from the table.
- Step 4** Click **Delete Image**.
- Step 5** In the **Delete Image(s)** screen, click **Delete**.

The firmware image is deleted from the system. You can download this firmware image from later on by using the **Download Image** option.

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## Deleting a Profile Created for Firmware Upgrade

Perform this procedure when you want to delete a profile created for firmware upgrade.

### Procedure

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- Step 1** Choose **Administration > Physical Accounts**.
  - Step 2** On the **Physical Accounts** page, click **Images - Local** or **Images - Network**.
  - Step 3** Select a profile from the table.
  - Step 4** Click **Delete Profile**.
  - Step 5** In the confirmation dialog box, click **Delete**.
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## Clearing Firmware Upgrade Status Messages

Perform this procedure to clear all firmware-related status messages recorded in the Cisco UCS Director system.

### Procedure

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- Step 1** Choose **Administration > Physical Accounts**.
  - Step 2** On the **Physical Accounts** page, click **Firmware Upgrades**.
  - Step 3** Click **Delete Upgrade Status**.
  - Step 4** Click **Submit**.
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## Firmware Upgrades From SD Cards

As an administrator, you can now perform firmware upgrades on rack servers by downloading ISO images to Micro SD cards or FlexFlash cards. The user interface provides you with the following options to perform these firmware upgrades:

- **Download Image**—Use this option to download a firmware image for specific servers. You can also choose to initiate the firmware upgrade immediately after the image is downloaded. See [Downloading Firmware Image to an SD Card, on page 7](#).
- **Run Upgrade**—Use this option to initiate a firmware upgrade at a later point in time after the image is downloaded. See [Running Firmware Upgrade from an SD Card, on page 8](#).
- **Delete Status Messages**—Use this option to delete all firmware upgrade-related status messages from the user interface. See [Deleting Image Download Messages, on page 9](#).

To use these options, you must first create rack accounts in the system, and then create either local image profiles or network image profiles in the system. For more information on creating these profiles, see [Adding Images to a Local Cisco UCS Director System, on page 1](#) and [Adding Images from a Network Server, on page 4](#).

## Downloading Firmware Image to an SD Card

### Before you begin

- Racks accounts are added in the system.
- Local and network image profiles are created in the system.
- On Cisco UCS M4 servers, ensure that the FlexFlash controller is configured in the Util mode and not the mirror mode. If the controller is configured in the mirror mode, you cannot download the ISO file to the SD card. Use the FlexFlash policy to configure the controller in the Util mode.

### Procedure

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- Step 1** Choose **Administration > Physical Accounts**.
- Step 2** Choose **Firmware Upgrades - SD**.
- Step 3** Choose **Download Image**.

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

Field Name	Description
<b>Download Image From</b> drop-down list	Choose if you want to use a local profile or a network profile to download the image.
<b>Select Profile</b> drop-down list	Choose a profile from the list. This drop-down list displays profiles for only M4 and M5 servers.
<b>Run Upgrade After Download</b> check box	Check this check box if the firmware upgrade process must be initiated immediately after the image is downloaded.  By default, this check box is not checked.
<b>Servers</b> field	Click <b>Select</b> to check the check boxes of the servers on which you want the firmware upgrade process to run on.  Click <b>Select</b> to return to the <b>Download Image</b> screen.

**Step 5** Click **Submit**.

The firmware image is downloaded to the servers that you selected.

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### What to do next

Initiate the firmware upgrade on the servers. See [Running Firmware Upgrade from an SD Card, on page 8](#).

## Running Firmware Upgrade from an SD Card

### Before you begin

You have downloaded the firmware image using the **Download Image** option. See [Downloading Firmware Image to an SD Card, on page 7](#).

### Procedure

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

**Step 2** Choose **Firmware Upgrades - SD**.

**Step 3** Click **Run Upgrade**.

**Step 4** Click **Select** to check the check boxes of the servers on which you want the firmware upgrade process to run on.

**Step 5** Click **Select**.

**Step 6** Click **Submit**.



The firmware upgrade process is initiated on the selected servers. You can review the progress of the upgrade from the **Images -SD** screen. The status is displayed in the **Upgrade Status** column.

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## Deleting Image Download Messages

### Procedure

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- Step 1** Choose **Administration > Physical Accounts**.
  - Step 2** Choose **Firmware Upgrades - SD**.
  - Step 3** Choose a profile from the list and click **Delete Status**.
  - Step 4** In the **Delete Image Download Messages** screen, click **Delete**.
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