



Updating Device Firmware

From the WLSE, you can update (or downgrade) firmware on 1200, 340, and 350 access points and on 350 bridges. The Firmware tab allows you to:

- Import firmware (from the client desktop only in this release) to a WLSE and manage the firmware stored on the WLSE.
- Upload firmware from the WLSE to devices by scheduling immediate or future upload jobs.

The subtabs under Firmware are:

- Images—See [Managing Firmware Images, page 4-1](#)
- Jobs—See [Managing Firmware Jobs, page 4-6](#)



Note

One or both of these subtabs may not be visible to some users.

Managing Firmware Images

The options under the Images subtab allow you to import images to the WLSE from the client desktop and manage the images on the WLSE. This section contains information about:

- Viewing images—See [Viewing Images on the WLSE, page 4-2](#)
- Editing images—See [Editing Image Details on the WLSE, page 4-2](#)
- Deleting images—See [Deleting Images from the WLSE, page 4-3](#)
- Importing images—See [Importing Images from the Desktop, page 4-4](#)

Related Topic

[Managing Firmware Jobs, page 4-6](#)

Viewing Images on the WLSE

You can view a list of images stored on the WLSE or view details on selected images.

Procedure

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- Step 1** Select **Firmware > Images**. The Firmware Images tree appears.
- Step 2** To view the list of available images for the device type, expand the folder.



Note Images that you download to the WLSE are automatically listed in the Firmware Images tree.

- Step 3** To view details on an image, select the image. The Image Details window opens, showing the image name, image version, image size, and a description.
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Related Topic

[Editing Image Details on the WLSE, page 4-2](#)

Editing Image Details on the WLSE

Procedure

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- Step 1** Select **Firmware > Images**. The Firmware Images tree appears.
- Step 2** Expand the folder that contains the image you want to edit, then select the image. The Image Details window opens.
- Step 3** You can edit the image name, image version, device type, and description:

Table 4-1 *Image Details*

Field	Description
Name	By default, the name of the image file or of the image file in a zipped file.
Device Type	The device type to which the firmware applies. If you change the device type of an image, the image is removed from one former device type folder and added to the new one. For example, if you change the device type from AP340 to AP350, the image is removed from the AP340 folder and added to the AP350 folder.
Version	The image version. Be careful when changing the version; proper uploading of firmware to devices requires accurate version information. You can enter the version in uppercase or lowercase.
Size	Size of the image (read-only field).
Description	This field is blank by default.

Step 4 When you finish editing, click **Save**.

Related Topic

[Deleting Images from the WLSE, page 4-3](#)

Deleting Images from the WLSE

Procedure

- Step 1** Select **Firmware > Images**. The Firmware Images tree appears.
- Step 2** Expand the folder that contains the image you want to delete, then select the image. The Image Details window opens.

- Step 3** Click **Delete**, then click **OK**. The image is deleted from the list of images in the folder.
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Related Topics

- [Viewing Images on the WLSE, page 4-2](#)
- [Editing Image Details on the WLSE, page 4-2](#)

Importing Images from the Desktop

This option allows you to download firmware images from the client system to the image library on the WLSE.

Procedure

- Step 1** Download firmware images to your client system from Cisco.com. You can download firmware images from the following URL:

<http://www.cisco.com/public/sw-center/sw-wireless.shtml>



Note Only the combined images from Cisco.com are supported for importing to the WLSE. If you download an image component from another site and then try to import a component, the operation will fail.

For information about supported versions of images, see the WLSE supported devices table at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cwparent/cw_1105

- Step 2** Select **Firmware > Images > Import > From Desktop**. The Desktop Image window appears. Complete the following:

Table 4-2 Desktop Import Window

Field	Description
Device Type	Select the device type from the list.
Version	Enter the image version. Be careful when entering the version; proper uploading of firmware to devices requires accurate version information. You can enter the version in uppercase or lowercase characters.
File Location	Enter the path to the image on the client system or click Browse .
Overwrite Existing Image	Select this checkbox if you are importing an image that is already stored on the WLSE. Otherwise, the image import will fail if the same image is already stored on the WLSE.



Note If the image file is in zip format, it will be automatically unzipped during the import operation.

Step 3 Click **Import**. An informational popup window appears. *Do not close the popup window until you receive a message that the import was successful or the import failed.*

If the import is successful, a confirmation message appears and the image is saved on the WLSE.

If the import fails, an error message appears. The import may fail for one of the following reasons:

- The image you are trying to import is not valid. An error message appears.
- There is insufficient space on the WLSE to store images.
- You specified an image that already exists in the image library and you did not select the Overwrite Existing Image checkbox in Step 2.

Step 4 Repeat Steps 2 and 3 to import more images.

Related Topics

- [Viewing Images on the WLSE, page 4-2](#)
- [Editing Image Details on the WLSE, page 4-2](#)

Managing Firmware Jobs

This window allows you view a list of all the firmware jobs in their various states. It also allows you to create, edit, filter, and delete firmware jobs.

The topics covered in this section are:

- [Creating a Firmware Job, page 4-13](#)
- [Using the Job Functions, page 4-13](#)
 - [Viewing Jobs by Job State, page 4-14](#)
 - [Filtering Jobs, page 4-15](#)
 - [Editing a Job, page 4-16](#)
 - [Deleting a Job, page 4-16](#)
 - [Viewing Job Run Details, page 4-17](#)

Related Topic

[Managing Firmware Images, page 4-1](#)

Job Choices

When you create or edit a firmware upload job, the following choices appear in the left pane of the Jobs window. All of these tasks must be completed, but you can complete tasks 1 through 4 in any order.

1. **Job Name**—See [Naming the Job, page 4-7](#).
2. **Select Image**—See [Selecting the Image, page 4-8](#).
3. **Select Devices**—See [Selecting Devices, page 4-8](#).
4. **Schedule Job**—See [Scheduling a Job, page 4-9](#).
5. After completing tasks 1 through 4, you validate and save the job—See [Finishing the Job, page 4-10](#).

**Caution**

Clicking on another tab before you have saved your entries in the Jobs window will cause the window to reset and you will lose all the information you entered.

Naming the Job

Procedure

Step 1 Click **Job Name**. The Job Name dialog box appears.



Note Clicking **Clear** removes all the current entries in the window and any entries you have made in other Job windows up until that point.

Step 2 Complete the following:

Table 4-3 Job Name Parameters

Field	Description
Job Name	Enter a name for the job. For guidelines on naming jobs, see Naming Guidelines, page A-1 .
Description	Enter a description of the job. For guidelines on entering descriptions, see Naming Guidelines, page A-1 .
Protocol	Select the type of protocol to be used: HTTP or SNMP.

Step 3 From the menu in the left pane, go to the next step, Select Image. See [Selecting the Image, page 4-8](#).

Selecting the Image

Procedure

- Step 1 Click **Select Image**. The Firmware Images tree appears.
 - Step 2 Expand the device folder and select the image you want to upload. The Image Detail window opens.
 - Step 3 From the menu in the left pane, go to the next step, Select Devices. See [Selecting Devices, page 4-8](#).
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Selecting Devices

Procedure

- Step 1 Click **Select Devices**. The Select Devices window appears.



Note Clicking **Clear** removes all the current entries in the window and any entries you have made in other Job windows up until that point.

- Step 2 From the device selector tree, expand the folder that contains the devices you want to include in the job. Then click the device group folder. The group and all its devices are added to the All Available Devices list.
For more information on device grouping, see [Managing Groups, page 6-28](#).
- Step 3 From the All Available Devices list, select the group or individual devices, then click **Add**. The devices appear in the Selected Devices list box.
The devices in the Selected Devices list box will receive the image you select.
- Step 4 To add devices from other groups, repeat steps 2 and 3.
- Step 5 To remove devices, select them from the Selected Devices list, then click **Remove**.

- Step 6 From the menu in the left pane, go to the next step, Schedule Job. See [Scheduling a Job, page 4-9](#).
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Related Topic

[Managing Groups, page 6-28](#)

Scheduling a Job

When scheduling a firmware job, you can select Run Now to start the job in 2 minutes, or you can schedule the job for a future date and time.

Procedure

- Step 1 Click **Schedule Job**. The Schedule Job dialog box appears.



Note Clicking **Clear** removes all the current entries in the window and any entries you have made in other Job windows up until that point.

- Step 2 Schedule the job as follows:

- To run the job now, select the **Run Now** checkbox. The job will begin running in 3 minutes.



Note Selecting this option ignores any date and time that you enter from the Start Date and Start Time lists.

- To schedule the job for a later date and time, select the month, day, and year from the Start Date lists and select the hour and minutes from the Start Time lists.

- Step 3 From the menu in the left pane, go to the next step, Finish. See [Finishing the Job, page 4-10](#).
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Finishing the Job

Procedure

- Step 1** Click **Finish** in the left pane to complete creating a job. The Finish dialog box appears in the right pane. The dialog box has the following buttons and check boxes:
- Validate and Ignore Warnings—see [Step 2](#).
 - Save—see [Step 3](#).
- Step 2** Click **Validate** to make sure the job will run successfully. If you missed one or more of the numbered steps in the left pane, error messages are displayed (for example, `Devices not Selected`). Correct these errors and click **Validate** again. The Job Validation Summary window opens, showing the following:




Note It is recommended that you always validate a job before saving it. Also, you should check the image release notes on CCO for the latest caveat information on the image.

Table 4-4 *Job Validation Summary Window*

Field	Description
Image Selected, Version, and Device Type	The image name, image version, and device type that you selected when creating the job.
Image version validation	Whether the image version is valid.
Image known bugs validation	Whether there are any major caveats for this image.

Table 4-4 Job Validation Summary Window

Field	Description
Job protocol validation	<p>Whether the job protocol (HTTP or SNMP) you selected is supported on this device.</p> <hr/>  <p>Note Firmware update via SNMP is supported for firmware versions 11.08T and later.</p>
Device-Image validation	<p>Whether the image you selected is valid for this device. This field is marked “Error” if the image is not valid for the type of device you selected.</p>

The Job Validation Summary fields are marked as follows:

- **Passed**—No problems were found.
- **Information**—No problems were found, but there is information you might want to know. For example, the image version you selected is already installed on the device.
- **Warning**—The operation is permitted but may not be advisable; for example, downgrading to an earlier image.

The selected image will not be applied to devices that have warnings associated with them, unless you deal with the warnings before saving the job. Use one of the following methods to deal with the warnings:

- Before saving the job, edit your job choices to fix the problems that caused the warnings.
- Select the **Ignore Warnings** checkbox in the Finish dialog box. By default, warnings are not ignored.



Note If you do not fix the problems or specify that warnings be ignored, the job will run for devices that have no warnings.

- **Error**—The operation is not permitted. The selected image will not be applied to devices that have errors associated with them. Before saving the job, you must edit your job choices to eliminate the errors. Errors cannot be ignored.



Note If you do not eliminate errors, the job will run for devices that have no errors.

- Step 3** Click **Save** to add the job to the list of scheduled jobs. The screen refreshes and the Job Save Summary window appears, showing the following information:

Table 4-5 Job Save Summary Window

Field	Description
Name	Name of the job.
Description	Job description, if any.
Image	Name of the image selected for the job.
Devices	Names of the devices selected for the job.
Groups	Names of groups selected for the job.
Schedule	Scheduled date and time for the job.

- Step 4** You can view the status of the job by selecting **Firmware > Jobs**. For more information, see [Viewing Jobs by Job State, page 4-14](#).

Related Topics

- [Deleting a Job, page 4-16](#)
- [Viewing Jobs by Job State, page 4-14](#)
- [Viewing Job Run Details, page 4-17](#)

Creating a Firmware Job



Note Your login determines whether you can use this option.

Procedure

- Step 1** Select **Firmware > Jobs**. The Jobs window appears.
- Step 2** Enter a name for the job and click **Create Job**.
For guidelines on job names, see [Naming Guidelines, page A-1](#).
- Step 3** The window refreshes with the Job Creation menu in the left pane and the Job Name dialog box in the right pane.
- Step 4** Select the numbered choices in the left pane to create a job. For information on these choices, see [Job Choices, page 4-6](#).
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Using the Job Functions

To view job status, select **Firmware > Jobs**. The Jobs window appears. This window allows you to view job status, filter a job, edit a job, view details about a job, and undo a job.

Device data is polled every 15 minutes by default, and job data is retained for 30 days by default. To change either of these defaults, see [Managing System Parameters, page 6-59](#).



Note Your login determines whether you can use these options.

The topics covered in this section are:

- [Viewing Jobs by Job State, page 4-14](#)
- [Filtering Jobs, page 4-15](#)
- [Editing a Job, page 4-16](#)
- [Deleting a Job, page 4-16](#)

- [Viewing Job Run Details, page 4-17](#)

Related Topic

[Creating a Firmware Job, page 4-13](#)

Viewing Jobs by Job State

Procedure

- Step 1** From the Job State list, select the type of job whose status you want to check. The window refreshes and the jobs are displayed.

The information displayed depends on which Job State you selected: [Scheduled and Unscheduled](#), [Running](#), or [All](#):

- Scheduled and Unscheduled

Field	Description
Job Name	The job name.
Next Schedule	For scheduled jobs, this indicates when the job will run. For completed jobs, this is the time the job ran.
Last Run Status	The status of the last run.

- Running

Field	Description
Job Name	The job name.
Job Start Time	The time the job started.
Percent Complete	The percent of the job that has completed running.
Next Schedule	The next time the job is scheduled to run.

- All

Field	Description
Job Name	The job name.
Job State	The state of the job. Note A job in the DidNotStart state must be rescheduled.
Next Schedule	For scheduled jobs, this indicates when the job will run. For completed jobs, this is when the job ran.
Last Run Status	The status of the job the last time it ran.

Step 2 To sort table data, click on the column heading by which you want to sort the data:

- A triangle indicates ascending order.
- An upside-down triangle indicates descending order.
- No triangle indicates that the data is not sorted.

Step 3 You can do any of the following:

- Filter the job—See [Filtering Jobs, page 4-15](#).
- Edit the job—See [Editing a Job, page 4-16](#).
- Delete the job—See [Deleting a Job, page 4-16](#).
- View job run details—See [Viewing Job Run Details, page 4-17](#).
- Refresh the screen—Click **Refresh**.

Filtering Jobs

Use this option to display a limited set of jobs, making it easier to search for a particular job by name.

Procedure

Step 1 Click **Filter Job**. The Filter Job dialog box appears.

Step 2 Enter the name, or part of the name. You can use % as a wildcard: for example, entering %name% displays all the jobs that contain the word “name.”

- Step 3 Click **Apply filter**. The Job window refreshes and the matching jobs are displayed in the Jobs list.



Note The filter remains in effect until the page is refreshed.

Editing a Job

Use this option to edit jobs from the displayed list of jobs.

Procedure

- Step 1 From the list of jobs, select the job that you want to edit.
- Step 2 Click **Edit**. The Job Name dialog box appears.
- Step 3 Select choices in the Job Creation Menu. For descriptions, see [Job Choices, page 4-6](#).
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Deleting a Job

Use this option to delete jobs from the displayed list of jobs. Jobs that are scheduled, unscheduled, completed, or did not start can be deleted. Jobs that are running cannot be deleted.

Procedure

- Step 1 From the list of jobs, select the job that you want to delete.
- Step 2 Click **Delete**.
- Step 3 Click **OK** in the popup windows.
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Viewing Job Run Details

Use this option to view details about a job.

Procedure

Step 1 From the All Jobs table displayed in the **Firmware > Jobs** window, select a job, then click **Job Run Detail**.

Step 2 The details window appears with the Job Runs table:

Field	Description
Select Run	Used to select a job to see its details.
Job Start Time	The time the job started.
Job End Time	The time the job ended.
Job Status	The status of the job.
Percent Complete	The percent of the job that completed.

Step 3 Do any of the following:

- To view details for a particular job run, select the job, then click **Show Run Details**. The Job Run details table displays the information. (See [Job Run Details Table, page 4-17](#).)
- To view the job run log, click **Job Run Log**. A window displays all the details for the selected job number.
- To refresh the table, click **Refresh**.

Job Run Details Table

The Job Runs Details table displays the following information:

Field	Description
Device Name	The name of the device.
Start Time	The time the job started.

Field	Description
End Time	The time the job ended.
Status	The status of the job.

To sort table data, click on the column heading by which you want to sort the data:

- A triangle indicates ascending order.
- An upside-down triangle indicates descending order.
- No triangle indicates that the data is not sorted.