

Scheduling Tasks

You can schedule many different types of administrative tasks to run at designated times, either once or on a recurring basis.

Note Some tasks (such as those involving automated software updates) may place a significant load on networks with low bandwidths. You should schedule tasks like these to run during periods of low network use.

See the following sections for more information:

- Configuring a Recurring Task, page 42-1 explains how to set up a scheduled task so that it runs at regular intervals.
- Automating Backup Jobs, page 42-2 provides procedures for scheduling backup jobs.
- Automating Applying an Intrusion Policy, page 42-3 provides procedures for queuing an intrusion policy apply.
- Automating Geolocation Database Updates, page 42-4 provides procedures for scheduling automatic updates of the geolocation database (GeoDB).
- Automating Software Updates, page 42-5 provides procedures for scheduling the download, push, and installation of software updates.
- Automating URL Filtering Updates, page 42-7 provides procedures for automating updates of URL filtering data.
- Viewing Tasks, page 42-8 describes how to view and manage tasks after they are scheduled.
- Editing Scheduled Tasks, page 42-9 describes how to edit an existing task.
- Deleting Scheduled Tasks, page 42-10 describes how to delete one-time tasks and all instances of recurring tasks.

Configuring a Recurring Task

License: Any

You set the frequency for a recurring task using the same process for all types of tasks.

Note that the time displayed on most pages on the user interface is the local time, which is determined by using the time zone you specify in your local configuration. Further, the ASA FirePOWER module automatically adjusts its local time display for daylight saving time (DST), where appropriate. However, recurring tasks that span the transition dates from DST to standard time and back do not adjust for the

transition. That is, if you create a task scheduled for 2:00 AM during standard time, it will run at 3:00 AM during DST. Similarly, if you create a task scheduled for 2:00 AM during DST, it will run at 1:00 AM during standard time.

To configure a recurring task:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click **Add Task**.

The New Task page appears.

Step 3 From the **Job Type** list, select the type of task that you want to schedule.

Each of the types of tasks you can schedule is explained in its own section.

Step 4 For the **Schedule task to run** option, select **Recurring**.

The page reloads with the recurring task options.

Step 5 In the **Start On** field, specify the date when you want to start your recurring task. You can use the drop-down list to select the month, day, and year.

Step 6 In the **Repeat Every** field, specify how often you want the task to recur. You can specify a number of hours, days, weeks, or months.

Tip You can either type a number or click the up icon (▲) and the down (▼) icon to specify the interval. For example, type `2` and select Days to run the task every two days.

Step 7 In the **Run At** field, specify the time when you want to start your recurring task.

Step 8 If you selected `Weeks` for **Repeat Every**, a **Repeat On** field appears. Select the check boxes next to the days of the week when you want to run the task.

Step 9 If you selected `Months` for **Repeat Every**, a **Repeat On** field appears. Use the drop-down list to select the day of the month when you want to run the task.

The remaining options on the New Task page are determined by the task you are creating. See the following sections for more information:

- Automating Backup Jobs, page 42-2
- Automating Applying an Intrusion Policy, page 42-3
- Automating Software Updates, page 42-5
- Automating URL Filtering Updates, page 42-7

Automating Backup Jobs

You can use the scheduler to automate backups of your ASA FirePOWER module. You must design a backup profile before you can configure a backup as a scheduled task. For more information, see Creating Backup Profiles, page 48-3.

To automate backup tasks:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click **Add Task**.

The New Task page appears.

Step 3 From the **Job Type** list, select **Backup**.

The page reloads to show the backup options.

Step 4 Specify how you want to schedule the backup, **Once** or **Recurring**:

- For one-time tasks, use the drop-down lists to specify the start date and time. The **Current Time** field indicates the current time on the appliance.
- For recurring tasks, you have several options for setting the interval between instances of the task. See Configuring a Recurring Task, page 42-1 for details.

Step 5 In the **Job Name** field, type a name using up to 255 alphanumeric characters, spaces, or dashes.

Step 6 From the **Backup Profile** list, select the appropriate backup profile.

For more information on creating new backup profiles, see Creating Backup Profiles, page 48-3.

Step 7 Optionally, in the **Comment** field, type a comment using up to 255 alphanumeric characters, spaces, or periods.

Tip The comment field appears in the View Tasks section of the page, so you should try to keep it relatively short.

Step 8 Optionally, in the **Email Status To:** field, type the email address (or multiple email addresses separated by commas) where you want task status messages sent.

You must have a valid email relay server configured to send status messages. See Configuring a Mail Relay Host and Notification Address, page 43-6 for more information about configuring a relay host.

Step 9 Click **Save**.

The task is added. You can check the status of a running task on the Task Status page; see Viewing the Status of Long-Running Tasks, page C-1.

Automating Applying an Intrusion Policy

License: Protection

You can queue an intrusion policy apply to the ASA FirePOWER module. This task only applies the intrusion policy if an access control policy that references the intrusion policy is applied to the ASA FirePOWER module when the task runs. Otherwise, the task aborts before completion.

You must associate an intrusion policy with an access control policy and apply the access control policy to a device before scheduling this task; see Controlling Traffic Using Intrusion and File Policies, page 11-1.

To queue a policy apply:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The schedule calendar page for the current month appears.

Step 2 Click **Add Task**.

The New Task page appears.

Step 3 From the **Job Type** list, select **Queue Intrusion Policy Apply**.

The page reloads to show the options for queuing a policy apply.

Step 4 Specify how you want to schedule the task, **Once** or **Recurring**:

- For one-time tasks, use the drop-down lists to specify the start date and time. The **Current Time** field indicates the current time on the ASA FirePOWER module.
- For recurring tasks, you have several options for setting the interval between instances of the task. See Configuring a Recurring Task, page 42-1 for details.

Step 5 In the **Job Name** field, type a name using up to 255 alphanumeric characters, spaces, or dashes.

Step 6 In the **Intrusion Policy** field, you have the following options:

- Select an intrusion policy to apply to the ASA FirePOWER module.
- Select **All intrusion policies** to apply all intrusion policies already applied to the ASA FirePOWER module.

Step 7 Optionally, in the **Comment** field, type a comment using up to 255 alphanumeric characters, spaces, or periods.

Tip The comment field appears in the Tasks Details section at the bottom of the schedule calendar page, so you should limit the size of your comment.

Step 8 Optionally, in the **Email Status To:** field, type the email address (or multiple email addresses separated by commas) where you want task status messages sent.

You must have a valid email relay server configured to send status messages. See Configuring a Mail Relay Host and Notification Address, page 43-6 for more information about configuring a relay host.

Step 9 Click **Save**.

The task is added. You can check the status of a running task in the Task Details section of the calendar page; see Viewing the Status of Long-Running Tasks, page C-1.

Step 10 To edit your saved task, click the task anywhere it appears on the schedule calendar page.

The Task Details section appears at the bottom of the page. To make any changes, click the edit icon ( ).

Automating Geolocation Database Updates

License: Any

You can use the scheduler to automate recurring geolocation database (GeoDB) updates. Recurring GeoDB updates run once every 7 days (weekly); you can configure the time the update recurs each week. For more information on GeoDB updates, see Updating the Geolocation Database, page 46-19.

To automate geolocation database updates:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Updates**.

The Product Updates page appears.

Step 2 Click the **Geolocation Updates** tab.

The Geolocation Updates page appears.

Step 3 Under **Recurring Geolocation Updates**, select the **Enable Recurring Weekly Updates** check box.

The Update Start Time field appears.

Step 4 In the **Update Start Time** field, specify the time and day of the week when you want weekly GeoDB updates to occur.

Step 5 Click **Save**.

The task is added. You can check the status of a running task on the Task Status page; see Viewing the Status of Long-Running Tasks, page C-1.

Automating Software Updates

You can automatically download and apply most patches and feature releases to the ASA FirePOWER module.

Note You must manually upload and install updates in two situations. First, you cannot schedule major updates to the ASA FirePOWER module. Second, you cannot schedule updates for or pushes from appliances that cannot access the Support Site. For information on manually updating the ASA FirePOWER module, see Updating ASA FirePOWER Module Software, page 46-1.

If you want to have more control over this process, you can use the **Once** option to download and install updates during off-peak hours after you learn that an update has been released.

See the following sections for more information:

- Automating Software Downloads, page 42-5
- Automating Software Installs, page 42-6

Automating Software Downloads

You can create a scheduled task that automatically downloads the latest software updates from Cisco. You can use this task to schedule download of updates you plan to install manually.

To automate software update downloads:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click **Add Task**.

The New Task page appears.

Step 3 From the **Job Type** list, select **Download Latest Update**.

The New Task page reloads to show the update options.

Step 4 Specify how you want to schedule the task, **Once** or **Recurring**:

- For one-time tasks, use the drop-down lists to specify the start date and time. The **Current Time** field indicates the current time on the appliance.
- For recurring tasks, you have several options for setting the interval between instances of the task. See Configuring a Recurring Task, page 42-1 for details.

Step 5 In the **Job Name** field, type a name using up to 255 alphanumeric characters, spaces, or dashes.

Step 6 In the **Update Items** section, select **Software**.

Step 7 Optionally, in the **Comment** field, type a comment using up to 255 alphanumeric characters, spaces, or periods.

Tip The comment field appears in the View Tasks section of the page, so you should try to keep it relatively short.

Step 8 Optionally, in the **Email Status To:** field, type the email address (or multiple email addresses separated by commas) where you want task status messages sent.

You must have a valid email relay server configured to send status messages. See Configuring a Mail Relay Host and Notification Address, page 43-6 for more information about configuring a relay host.

Step 9 Click **Save**.

The task is added. You can check the status of a running task on the Task Status page; see Viewing the Status of Long-Running Tasks, page C-1.

Automating Software Installs

Caution Depending on the update being installed, the appliance may reboot after the software is installed.

To schedule a software installation task:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click **Add Task**.

The New Task page appears.

Step 3 From the **Job Type** list, select **Install Latest Update**.

The page reloads to show the options for installing updates.

Step 4 Specify how you want to schedule the task, **Once** or **Recurring**:

- For one-time tasks, use the drop-down lists to specify the start date and time. The **Current Time** field indicates the current time on the appliance.
- For recurring tasks, you have several options for setting the interval between instances of the task. See Configuring a Recurring Task, page 42-1 for details.

Step 5 In the **Job Name** field, type a name using up to 255 alphanumeric characters, spaces, or dashes.

Step 6 Optionally, in the **Comment** field, type a comment using up to 255 alphanumeric characters, spaces, or periods.

Tip The comment field appears in the View Tasks section of the page, so you should try to keep it relatively short.

Step 7 Optionally, in the **Email Status To:** field, type the email address (or multiple email addresses separated by commas) where you want task status messages sent.

You must have a valid email relay server configured to send status messages. See Configuring a Mail Relay Host and Notification Address, page 43-6 for more information about configuring a relay host.

Step 8 Click **Save**.

The task is added. You can check the status of a running task on the Task Status page; see Viewing the Status of Long-Running Tasks, page C-1.

Automating URL Filtering Updates

License: URL Filtering

You can use the scheduler to automate updates of URL filtering data from the Collective Security Intelligence Cloud. For a URL filtering update task to succeed:

- The ASA FirePOWER module must have access to the Internet or it cannot contact the cloud.
- You must enable URL filtering, as described in Enabling Cloud Communications, page 44-2.

Note that when you enable URL filtering, you can also enable automatic updates. This forces the ASA FirePOWER module to contact the cloud every 30 minutes for URL filtering data updates. If you have enabled automatic updates, you should **not** create a scheduled task to update URL filtering data.

Although daily updates tend to be small, if it has been more than five days since your last update, new URL filtering data may take up to 20 minutes to download, depending on your bandwidth. Then, it may take up to 30 minutes to perform the update itself.

To automate URL filtering data tasks:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click **Add Task**.

The New Task page appears.

Step 3 From the **Job Type** list, select **Update URL Filtering Database**.

The page reloads to show the URL filtering update options.

Step 4 Specify how you want to schedule the update, **Once** or **Recurring**:

- For one-time tasks, use the drop-down lists to specify the start date and time. The **Current Time** field indicates the current time on the appliance.
- For recurring tasks, you have several options for setting the interval between instances of the task. See Configuring a Recurring Task, page 42-1 for details.

Step 5 In the **Job Name** field, type a name using up to 255 alphanumeric characters, spaces, or dashes.

Step 6 Optionally, in the **Comment** field, type a comment using up to 255 alphanumeric characters, spaces, or periods.

Tip The comment field appears in the View Tasks section of the page, so you should try to keep it relatively short.

Step 7 Optionally, in the **Email Status To** field, type the email address (or multiple email addresses separated by commas) where you want task status messages sent.

You must have a valid email relay server configured to send status messages. See Configuring a Mail Relay Host and Notification Address, page 43-6 for more information about configuring a relay host.

Step 8 Click **Save**.

The task is added. You can check the status of a running task on the Task Status page; see Viewing the Status of Long-Running Tasks, page C-1.

Viewing Tasks

After adding scheduled tasks, you can view them and evaluate their status. The View Options section of the page allows you to view scheduled tasks using a calendar and a list of scheduled tasks.

See the following sections for more information:

- Using the Calendar, page 42-8
- Using the Task List, page 42-9

Using the Calendar

The Calendar view option allows you to view which scheduled tasks occur on which day.

To view scheduled tasks using the calendar:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 You can perform the following tasks using the calendar view:

- Click the double left arrow icon ( ) to move back one year.
- Click the single left arrow icon ( ) to move back one month.
- Click the single right arrow icon ( ) to move forward one month.

- Click the double right arrow icon ( ) to move forward one year.
- Click **Today** to return to the current month and year.
- Click **Add Task** to schedule a new task.
- Click a date to view all scheduled tasks for the specific date in a task list table below the calendar.
- Click a specific task on a date to view the task in a task list table below the calendar.

Note For more information about using the task list, see Using the Task List.

Using the Task List

The Task List shows a list of tasks along with their status. The task list appears below the calendar when you open the calendar. In addition, you can access it by selecting a date or task from the calendar. See Using the Calendar, page 42-8 for more information.

Table 42-1 Task List Columns

Column	Description
Name	Displays the name of the scheduled task and the comment associated with it.
Type	Displays the type of scheduled task.
Start Time	Displays the scheduled start date and time.
Frequency	Displays how often the task is run.
Status	Describes the current status for a scheduled task: • A check mark icon ( ) indicates that the task ran successfully. • A question mark icon ( ) indicates that the task is in an unknown state. • An exclamation mark icon ( ) indicates that the task failed.
Creator	Displays the name of the user that created the scheduled task.
Edit	Edits the scheduled task.
Delete	Deletes the scheduled task.

Editing Scheduled Tasks

You can edit a scheduled task that you previously created. This feature is especially useful if you want to test a scheduled task once to make sure that the parameters are correct. Later, after the task completes successfully, you can change it to a recurring task.

To edit an existing scheduled task:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click either the task that you want to edit or the day on which the task appears.

The Task Details table containing the selected task or tasks appears.

Step 3 Locate the task you want to edit in the table and click the edit icon ( )

The Edit Task page appears, showing the details of the task you selected.

Step 4 Edit the task to meet your needs, including the start time, the job name, the comment, and how often the task runs, once or recurring. You cannot change the type of job.

The remaining options are determined by the task you are editing. See the following sections for more information:

- Automating Backup Jobs, page 42-2
- Automating Software Updates, page 42-5
- Automating URL Filtering Updates, page 42-7

Step 5 Click **Save** to save your edits.

Your change are saved and the Scheduling page appears again.

Deleting Scheduled Tasks

There are two types of deletions you can perform from the Schedule View page. You can delete a specific one-time task that has not yet run or you can delete every instance of a recurring task. If you delete an instance of a recurring task, all instances of the task are deleted. If you delete a task that is scheduled to run once, only that task is deleted.

The following sections describe how to delete tasks:

- To delete all instances of a task, see Deleting a Recurring Task, page 42-10.
- To delete a single instance of a task, see Deleting a One-Time Task, page 42-11.

Deleting a Recurring Task

When you delete one instance of a recurring task, you automatically delete all instances of that task.

To delete a recurring task:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 On the calendar, select an instance of the recurring task you want to delete.

The page reloads to display a table of tasks below the calendar.

Step 3 Locate an instance of the recurring task you want to delete in the table and click the delete icon ( ).

All instances of the recurring task are deleted.

Deleting a One-Time Task

You can delete a one-time scheduled task or delete the record of a previously run scheduled task using the task list.

To delete a single task or, if it has already run, delete a task record:

Step 1 In ASDM, select **Configuration > ASA FirePOWER Configuration > Tools > Scheduling**.

The Scheduling page appears.

Step 2 Click the task that you want to delete or the day on which the task appears.

A table containing the selected task or tasks appears.

Step 3 Locate the task you want to delete in the table and click the delete icon ( ).

The instance of the task you selected is deleted.