



Scheduler for Extreme Campus Controller User Guide

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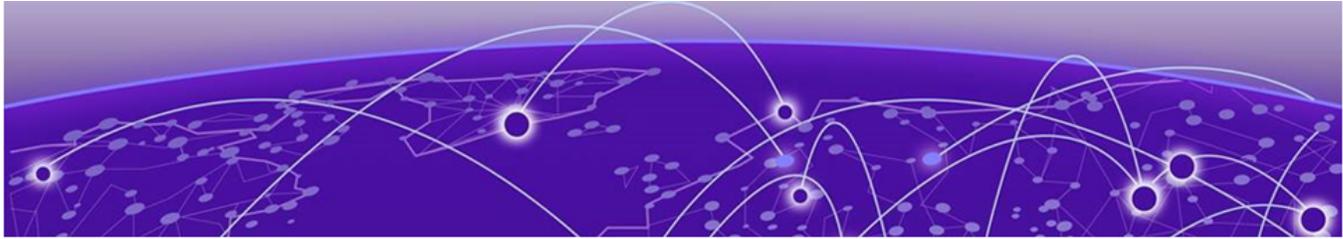
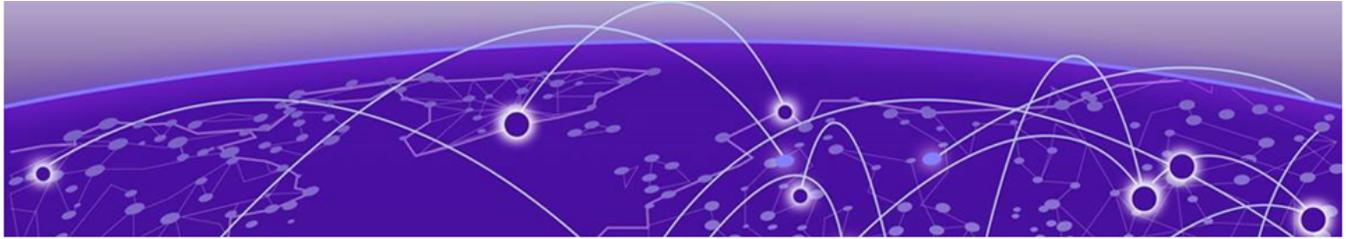


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Preface

Read the following topics to learn about:

- The meanings of text formats used in this document.
- Where you can find additional information and help.
- How to reach us with questions and comments.

Text Conventions

Unless otherwise noted, information in this document applies to all supported environments for the products in question. Exceptions, like command keywords associated with a specific software version, are identified in the text.

When a feature, function, or operation pertains to a specific hardware product, the product name is used. When features, functions, and operations are the same across an entire product family, such as ExtremeSwitching switches or SLX routers, the product is referred to as *the switch* or *the router*.

Table 1: Notes and warnings

Icon	Notice type	Alerts you to...
	Tip	Helpful tips and notices for using the product
	Note	Useful information or instructions
	Important	Important features or instructions
	Caution	Risk of personal injury, system damage, or loss of data
	Warning	Risk of severe personal injury

Table 2: Text

Convention	Description
screen displays	This typeface indicates command syntax, or represents information as it is displayed on the screen.
The words <i>enter</i> and <i>type</i>	When you see the word <i>enter</i> in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says <i>type</i> .
Key names	Key names are written in boldface, for example Ctrl or Esc . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press Ctrl+Alt+Del
Words in italicized type	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.
NEW!	New information. In a PDF, this is searchable text.

Table 3: Command syntax

Convention	Description
bold text	Bold text indicates command names, keywords, and command options.
<i>italic</i> text	Italic text indicates variable content.
[]	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
{ x y z }	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x y	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, such as passwords, are enclosed in angle brackets.
...	Repeat the previous element, for example, <i>member</i> [<i>member</i> ...].
\	In command examples, the backslash indicates a “soft” line break. When a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

Find Extreme Networks product information at the following locations:

[Current Product Documentation](#)

[Release Notes](#)

[Hardware and software compatibility](#) for Extreme Networks products

[Extreme Optics Compatibility](#)

[Other resources](#) such as white papers, data sheets, and case studies

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For details, visit www.extremenetworks.com/education/.

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

Extreme Portal

Search the GTAC (Global Technical Assistance Center) knowledge base; manage support cases and service contracts; download software; and obtain product licensing, training, and certifications.

The Hub

A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Call GTAC

For immediate support: (800) 998 2408 (toll-free in U.S. and Canada) or 1 (408) 579 2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any actions already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Subscribe to Product Announcements

You can subscribe to email notifications for product and software release announcements, Field Notices, and Vulnerability Notices.

1. Go to [The Hub](#).
2. In the list of categories, expand the **Product Announcements** list.
3. Select a product for which you would like to receive notifications.
4. Select **Subscribe**.
5. To select additional products, return to the **Product Announcements** list and repeat steps 3 and 4.

You can modify your product selections or unsubscribe at any time.

Providing Feedback

The Information Development team at Extreme Networks has made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, so we want to hear from you. We welcome all feedback, but we especially want to know about:

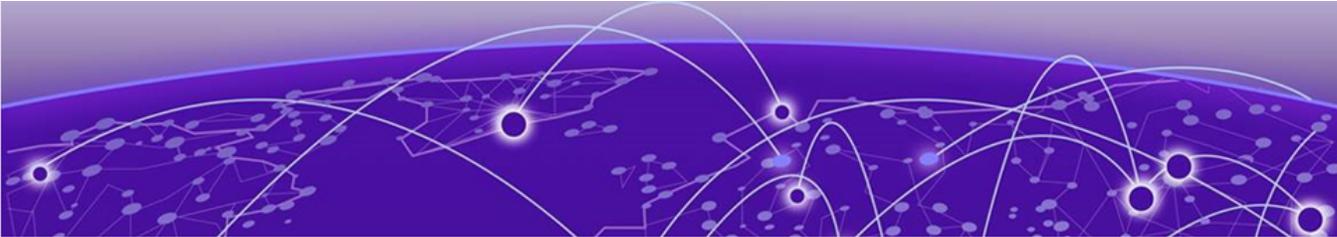
- Content errors, or confusing or conflicting information.

- Improvements that would help you find relevant information in the document.
- Broken links or usability issues.

If you would like to provide feedback, you can do so in three ways:

- In a web browser, select the feedback icon and complete the online feedback form.
- Access the feedback form at <https://www.extremenetworks.com/documentation-feedback/>.
- Email us at documentation@extremenetworks.com.

Provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.



Welcome to Scheduler for Extreme Campus Controller

[Install Scheduler for Extreme Campus Controller](#) on page 8

[Generate API Key](#) on page 9

[Upload API Key File](#) on page 10

[Access Scheduler for Extreme Campus Controller](#) on page 10

Scheduler for Extreme Campus Controller enables customers to define a schedule for network service per network name or SSID. With Scheduler application, you can define calendar based events and schedules for when certain networks (SSIDs) are enabled or even define periods when specific SSIDs are turned off. Customers can define one-time events or define daily, weekly, or monthly recurrences.

Related Topics

[Install Scheduler for Extreme Campus Controller](#) on page 8

[Generate API Key](#) on page 9

[Upload API Key File](#) on page 10

[Access Scheduler for Extreme Campus Controller](#) on page 10

Install Scheduler for Extreme Campus Controller



Note

Before you can access Scheduler for Extreme Campus Controller you must install ExtremeCloud Appliance and generate an API key for access to Scheduler application. For more information, refer to <https://extremenetworks.com/documentation/extremecloud-appliance>. We offer installation guides, an installation video, and information about *REST API Access for Docker Container Applications* in the *ExtremeCloud Appliance User Guide*.

Download the Docker file from the [Extreme Networks Support Portal](#). Then, use the following procedure to install Scheduler application on the ExtremeCloud Appliance.

From the ExtremeCloud Appliance:

1. Log into ExtremeCloud Appliance as a full administrator.
2. Go to **Administration > Applications**.
3. Select  to add an application to Extreme Campus Controller.
4. Install from a local **File** or Docker hub **Registry**.

5. To install directly from the Docker hub, select **Registry**, then **OK**. Or,
6. To install a local file, select **File > Upload**.
7. Navigate to the Docker file and select **Open**.
8. Select **OK**.

The application is uploaded and installed on Extreme Campus Controller.

9. Generate an API key on Extreme Campus Controller and associate it with the application before running the application.

Before accessing Scheduler for Extreme Campus Controller, generate an API key file in ExtremeCloud Appliance.

Related Topics

[Generate API Key](#) on page 9

[Upload API Key File](#) on page 10

[Access Scheduler for Extreme Campus Controller](#) on page 10

Generate API Key



Note

When running more than one Extreme Campus Controller application that uses an API key file, you need only one generated API key.

1. Log into Extreme Campus Controller with administrator credentials.
2. Go to **Administration > Accounts**.
3. Select a user account.
4. From the API Keys field, select **Generate New API Key**.

The key is generated. The **API Key** dialog displays.

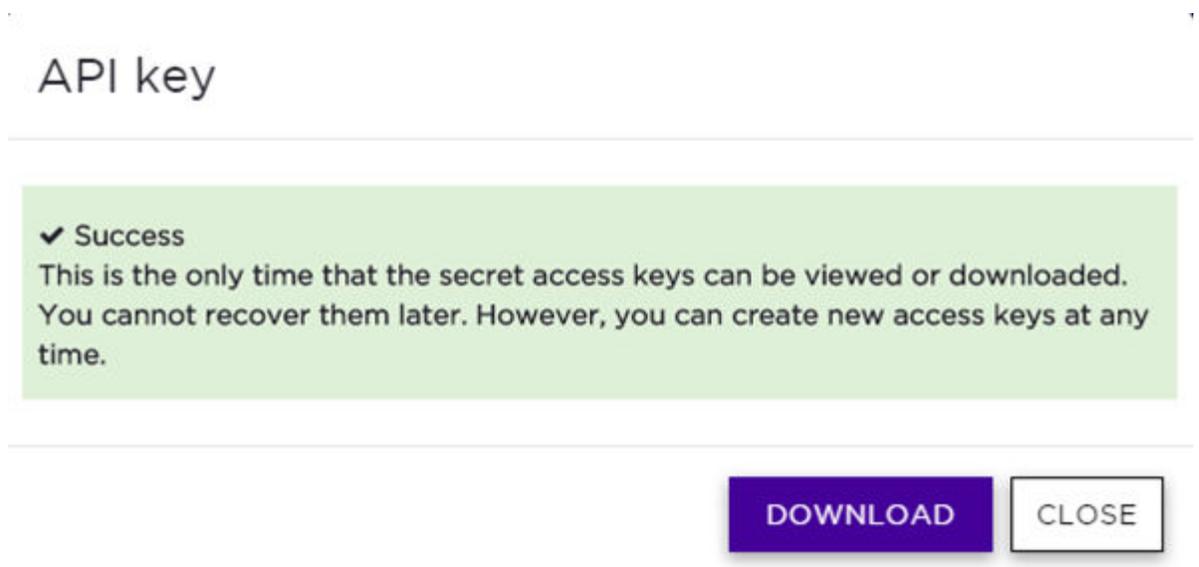


Figure 1: API Key dialog

5. To download the API key as a .json file, select **Download**.
Download the key immediately. If you select **Close**, you will not be able to access the key. You can generate additional keys at any time.
6. After you download the key, select **Close**.

Related Topics

[Install Scheduler for Extreme Campus Controller](#) on page 8

[Upload API Key File](#) on page 10

[Access Scheduler for Extreme Campus Controller](#) on page 10

Upload API Key File

Associating an API key file (configuration file) with Scheduler for Extreme Campus Controller allows Scheduler application access to the ExtremeCloud Appliance REST API. Before you can perform this task, generate the API key file.



Note

When running more than one application that uses an API Key file, you need only one generated API Key.

1. Log into ExtremeCloud Appliance with full administrator credentials.
2. Go to **Administration > Applications** and select .
3. Select the **Configuration Files** tab.
4. Select **api-keys.json**, and then select the upload icon .
5. Upload the API key file one of the following ways:
 - Click the **Choose File** box and navigate to the downloaded API key file.
 - Drag and drop the downloaded API key file onto the **Choose File** box.

The API key file displays in the **Configuration Files** list.

Related Topics

[Install Scheduler for Extreme Campus Controller](#) on page 8

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Access Scheduler for Extreme Campus Controller

Once Scheduler for Extreme Campus Controller is installed, associated with a API key, and running on the Extreme Campus Controller you can access the application any of the following ways:

- From the ExtremeCloud Appliance **Networks** workbench.
 1. Go to **Configure > Networks > WLANs**.
 2. Select a network or select **Add**.

The network settings display.

3. Select **Scheduling**.

Scheduler application automatically opens using your ExtremeCloud Appliance credentials.

- From a browser window, use the HTTPS protocol on the TCP port 5825.
 1. If your Extreme Campus Controller has the IP address 192.168.10.10, you can manage in a browser by typing `https://192.168.10.10:5825/apps/extreme-scheduler` into the URL field.
 2. Log in using your Extreme Campus Controller credentials.
- From Extreme Campus Controller **Applications** page.
 1. Go to **Administration > Applications**.
 2. Select the Scheduler for Extreme Campus Controller.

Scheduler application automatically opens using your ExtremeCloud Appliance credentials.

The following describes the available application actions:

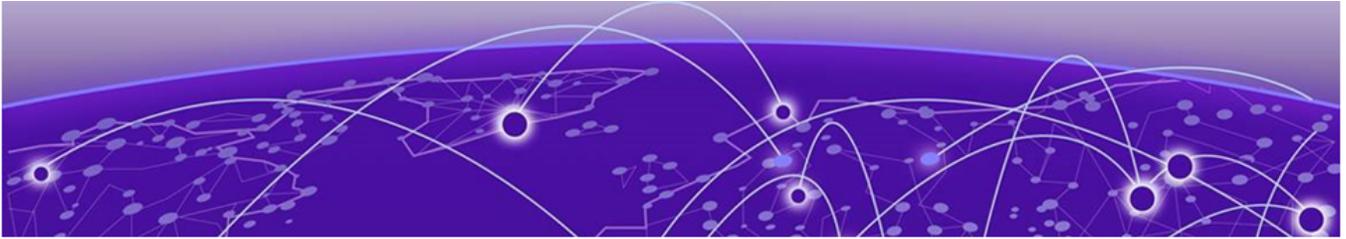
-  — Install new application.
-  — Edit Configuration Template. (Not available for Extreme Defender Application or Scheduler for Extreme Campus Controller.)
-  — Upgrade existing application.
-  — Uninstall application.
-  — Start application.
-  — Stop application.
-  — Show application statistics. Displays dashboard widgets, configuration details, and logs, and it provides console access to the application for troubleshooting.

Related Topics

[Install Scheduler for Extreme Campus Controller](#) on page 8

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Dashboard

The **Dashboard** consists of four panels that provide an overview of the application.

Last Successful Execution

A summary of the last successfully executed event. Actions:

-  – Select to view the configured execution parameters.
-  – Select to navigate to the **Execution Logs**. In the new view, the event briefly flashes making it easy to identify.

Last Failed Execution

A summary of the last failed event. Actions:

-  – Select to view the configured execution parameters
-  – Select to navigate to the **Execution Logs**. In the new view, the event briefly flashes making it easy to identify.

Next Execution

A summary of the last successful event. Actions:

-  – Select to view the configured execution parameters.
-  – Select to navigate to the event definition in the Scheduler.

Unconfigured Services

A summary of services that require attention. Actions:

-  – Select to navigate to the event definition under **Unconfigured Services**. In the new view, the event briefly flashes making it easy to identify.

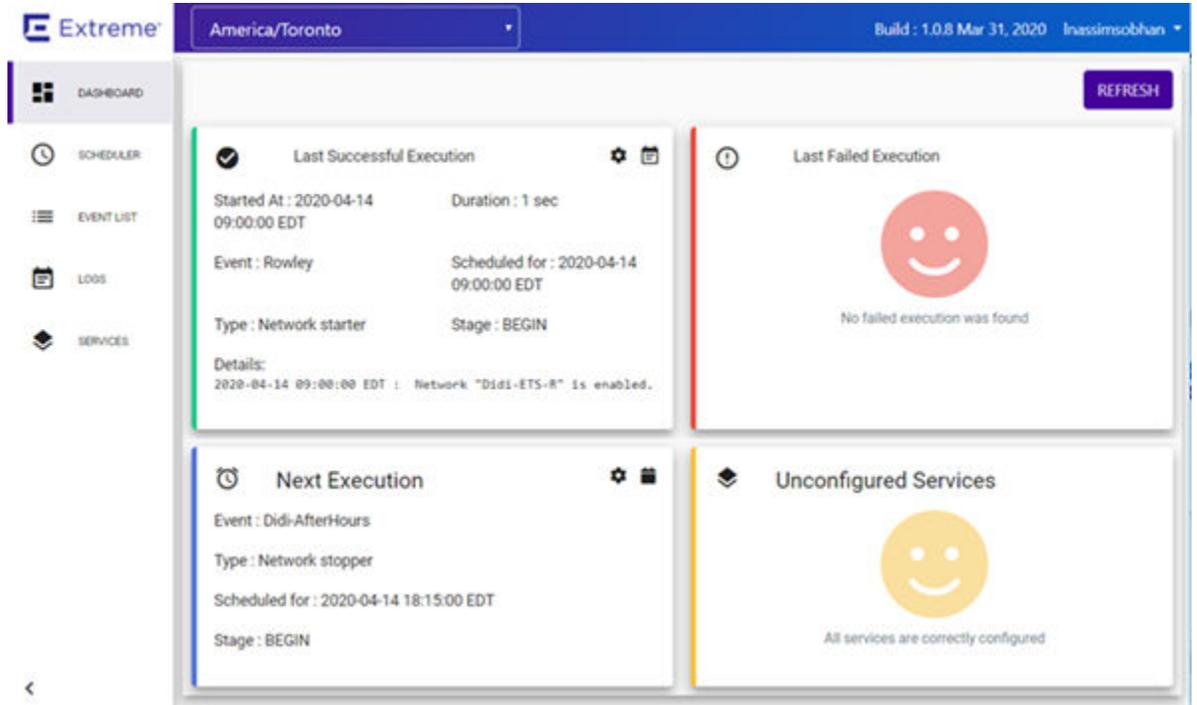
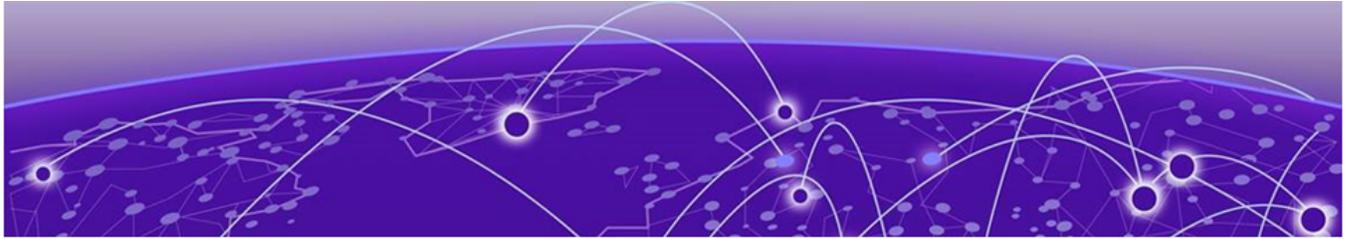


Figure 2: Overview Dashboard



Scheduler

[Work with Schedule View on page 15](#)

[Add Scheduled Events on page 17](#)

[Edit Scheduled Events on page 19](#)

[Delete Scheduled Events on page 19](#)

Use the **Scheduler** calendar to manage events. Select **Scheduler** to display a calendar view of events with the following features:

- Display a weekly or a monthly calendar of events.
- Date Controls:
 - Select a specific date
 - Display today's events
 - Navigate the calendar by week or month.
- Add, edit, and delete events.
- Manually refresh the calendar any time.

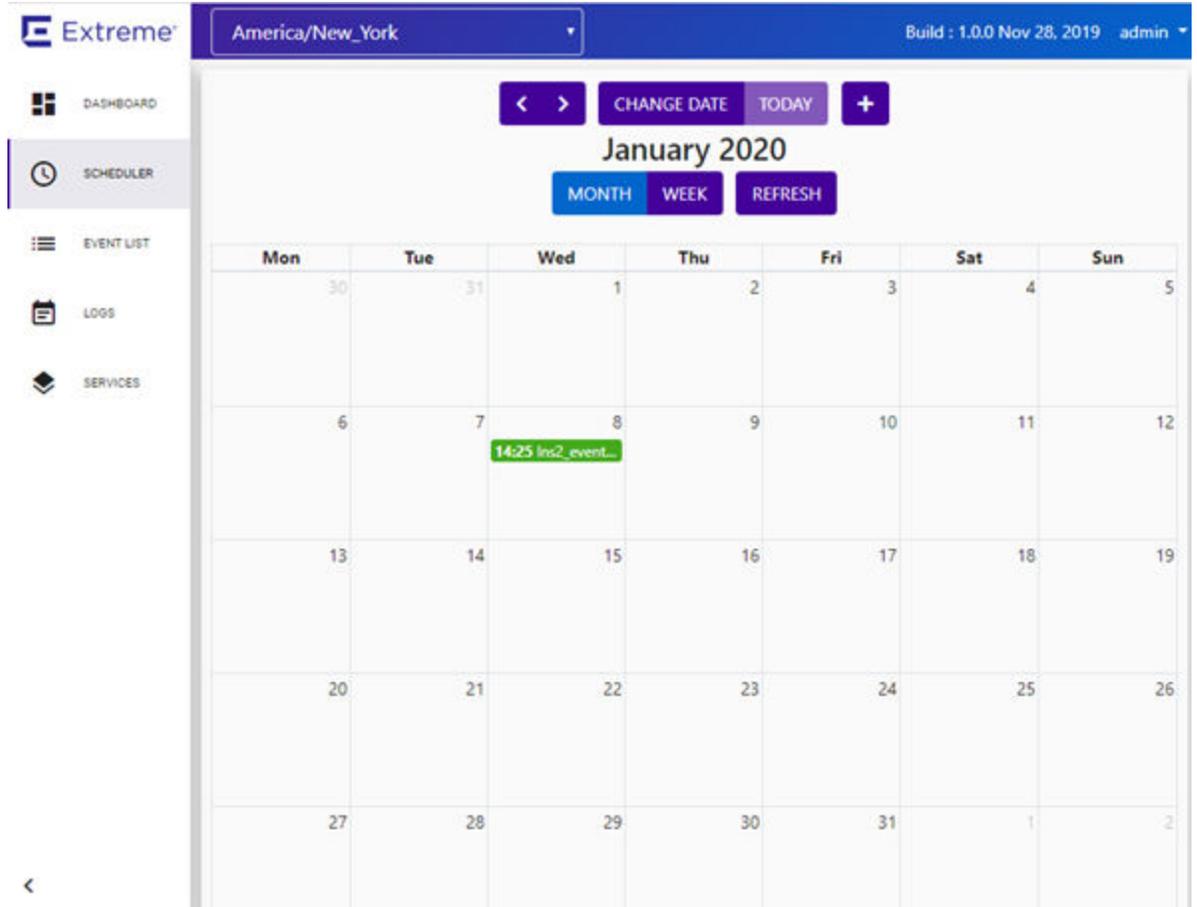


Figure 3: Event Schedule

Related Topics

[Work with Schedule View](#) on page 15

[Add Scheduled Events](#) on page 17

Work with Schedule View

The event Scheduler calendar uses a 24-hour format.

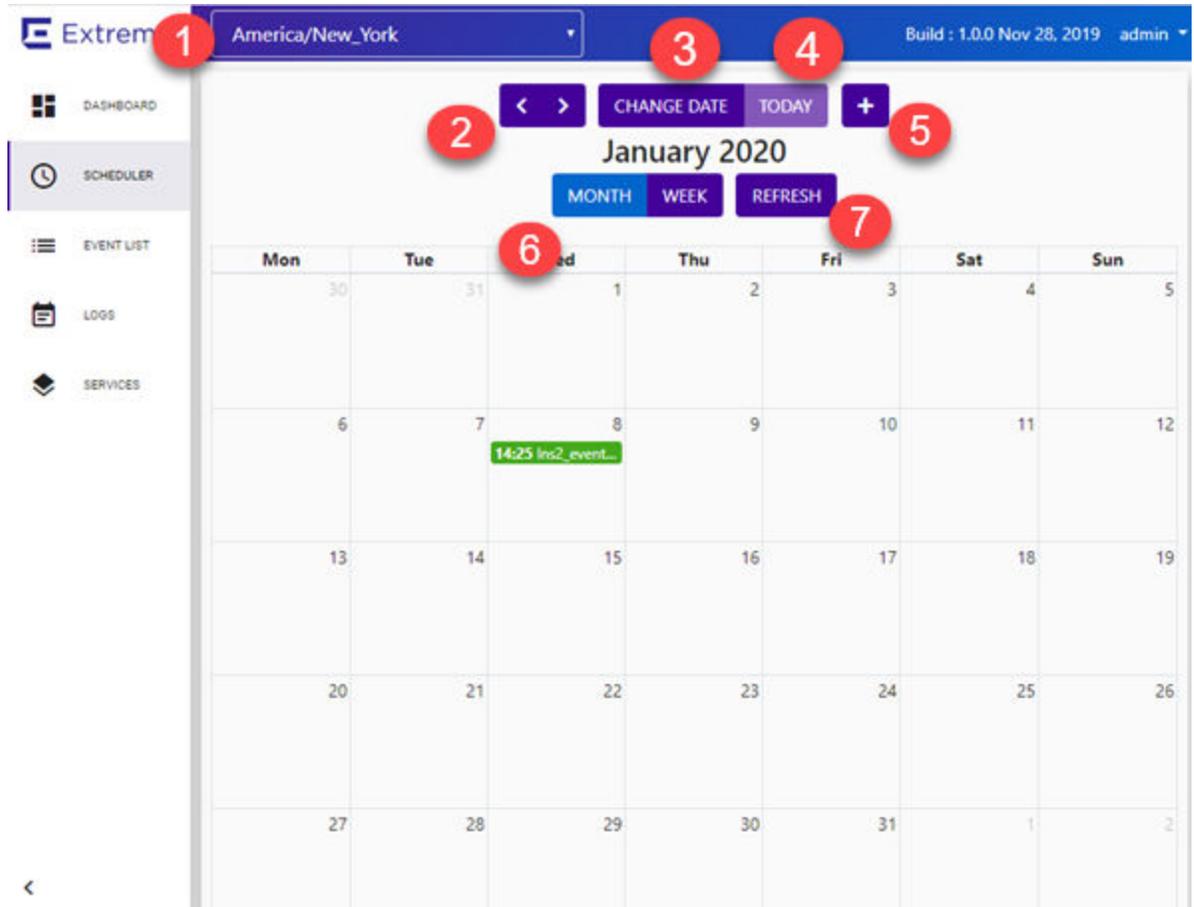


Figure 4: Scheduler Calendar View

The following options on the event Scheduler control the calendar view:

1. Specify a time zone from the drop-down field at the top of the calendar.
2. Use the arrows to display the previous and next week or month, depending on which setting: Week or Month is selected.
3. Select **Change Date** to display a calendar and select a date.
4. Select **Today** to display the month or week that includes the current day. **Today** is only available when the current week or month is not displayed.
5. Add **New Event**.
6. Select **Week** or **Month** to affect the calendar display, respectively.
7. Select **Refresh** to manually refresh the calendar display.

Related Topics

[Add Scheduled Events](#) on page 17

Add Scheduled Events

To add an event:

1. Go to **Scheduler** and select . Alternatively, select a time period on the calendar:
 - Scheduler application opens the **Add Event** dialog.
 - Scheduler application uses the selected Start and End time when configuring recurrence. You can modify the values if necessary.
2. Provide the event name and select **Next**.
3. Select the event type. Valid values are:
 - Network Start. This enables the selected SSIDs.
 - Aggregated Report. A scheduled report that offers a flexible duration (1-24 hours). Data is stored on Extreme Campus Controller and the report is generated once the duration period has expired. (Supported with Extreme Campus Controller v5.26.03 and later.)



Note

Only Venue reports are supported in the flexible duration Aggregated Report:

- **Usage by Type.** Usage for uplink and downlink.
 - **Throughput by Type.** Throughput for uplink and downlink.
 - **Throughput by Group.** Throughput per defined user group.
 - **Upload Usage by Group.** Upload usage by defined user group.
 - **Download Usage by Group.** Download usage by defined user group.
 - **Unique Users by Group.** Number of unique users by defined user group.
 - **Concurrent Users by Group.** Number of simultaneous connections by defined user group.
-
- Historical Report. A scheduled report from Extreme Campus Controller. Valid duration:
 - 3 Hours
 - 3 Days
 - 14 Days
 - Network Stop. This disables the selected SSIDs.
4. Configure Action — Select one or more SSIDs to associate with the event.
 - a. The available network SSIDs are listed under **Available**. The selected SSIDs are listed under **Selected**.
 - b. Drag and drop each network SSID between the two panes. Select  to move all SSIDs at once.
 - c. Select **Next**.
 5. Configure Recurrence — Select a **Recurrence** value. Valid values are:
 - Once — Occurs once only. This event does not reoccur.

Configure the **Start** and **End** date and time for the event. Select  to select the date. Provide the time in 24-hour format.

 - Daily

Configure the **Start** and **End** date and time for the event. Select  to select the date. Provide the time in 24-hour format.

Configure the first day and last day of the event.

The **Every** field indicates how often the event occurs. For example, if set to 2, the event occurs once every 2 days.

- Weekly

Configure the **Start** and **End** date and time for the event. Select 📅 to select the date. Provide the time in 24-hour format.

Configure the first day and last day of the event. Select 📅 to select the date. The **Every** field indicates how often the event occurs. For example, if set to 2, the event occurs once every 2 weeks, then select the first day of the week.

- Monthly

Configure the **Start** and **End** date and time for the event. Select 📅 to select the date. Provide the time in 24-hour format.

Configure the first day and last day of the event. Select 📅 to select the date. The **Every** field indicates how often the event occurs. For example, if set to 2, the event occurs once every 2 months.

6. Select **Save**.

The screenshot displays the Extreme Scheduler interface. At the top, there's a navigation bar with 'America/New_York' selected, a build version '1.0.0 Jan 15, 2020', and a user 'admin'. Below this is a control bar with 'CHANGE DATE', 'TODAY', and a '+' button, followed by the date range 'Jan 13 - 19, 2020' and buttons for 'MONTH', 'WEEK', and 'REFRESH'. The main area is a calendar grid with columns for 'Mon 1/13', 'Tue 1/14', 'Wed 1/15', 'Thu 1/16', 'Fri 1/17', 'Sat 1/18', and 'Sun 1/19'. The rows represent time slots from 00:00 to 16:00. A mouse cursor is visible over the 01:00 slot on Tuesday. A green event box is present on Friday, Jan 17, from 08:00 to 13:00, labeled '08:05 - Network Start'. A sidebar on the left contains icons for 'DASHBOARD', 'SCHEDULER', 'EVENT LIST', 'LOGS', and 'SERVICES'.

Figure 5: Adding an Event

Related Topics

[Edit Scheduled Events](#) on page 19

[Delete Scheduled Events](#) on page 19

Edit Scheduled Events

To modify an event on the Schedule calendar:

1. Go to **Scheduler** and select the event on the calendar. Or, go to the **Event List** and select  in the **Actions** field.

The **Edit Event** dialog displays.

2. Modify the event settings. Select **Next** or **Previous** to navigate through the configuration wizard.
3. Select **Save**.

Related Topics

[Add Scheduled Events](#) on page 17

[Delete Scheduled Events](#) on page 19

Delete Scheduled Events

To delete an event from the Schedule calendar:

1. Go to **Scheduler** and select the event on the calendar.

The **Edit Event** dialog displays.

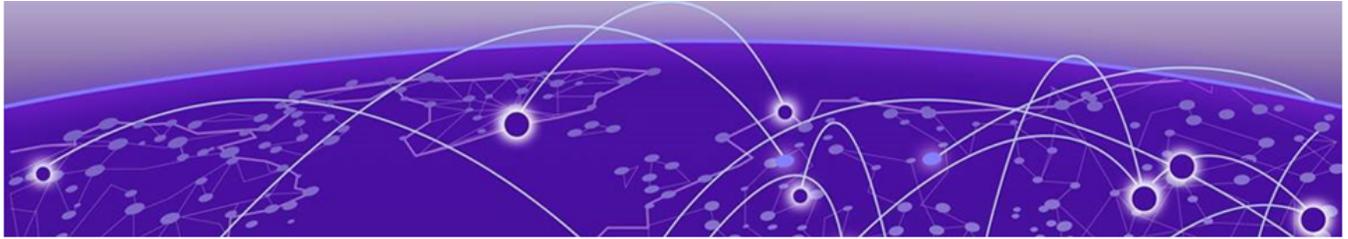
2. Select **Delete**.

The event is removed from the Schedule calendar.

Related Topics

[Add Scheduled Events](#) on page 17

[Edit Scheduled Events](#) on page 19



Event List

Go to **Event List** to view a list of configured events.

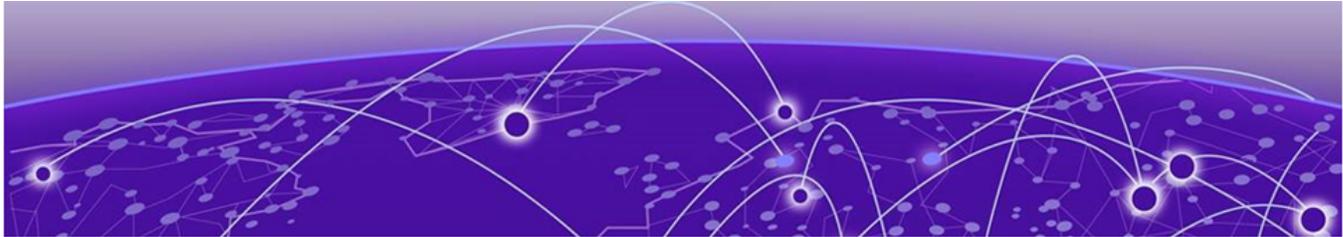
TITLE	DESCRIPTION	RECURRENCE	ACTIONS
Network A Start	test1	MONTHLY	
Network B Start	test1	WEEKLY	
Network C Start	test1	WEEKLY	

Figure 6: Event List screen

- Select the value in the **Recurrence** column to view the event recurrence details.
- Select to view the calendar schedule that includes the event. In the new view, the event briefly flashes making it easy to identify.
- Select to edit event details or delete the event.
- Select **Refresh** to manually refresh the Event List.

Related Topics

[Add Scheduled Events](#) on page 17



Logs

The **Logs** screen provides information about executed events and their outcome.

STATUS	EVENT	TYPE	STAGE	SCHEDULED AT	STARTED AT	DURATION	ACTIONS
●	Didi-AfterHours	Network stopper	BEGIN	2020-04-07 18:15:00 EDT	2020-04-07 18:15:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Didi-AfterHours	Network stopper	END	2020-04-07 19:45:00 EDT	2020-04-07 19:45:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Rowley	Network starter	END	2020-04-07 20:00:00 EDT	2020-04-07 20:00:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Rowley	Network starter	BEGIN	2020-04-08 09:00:00 EDT	2020-04-08 09:00:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Didi-AfterHours	Network stopper	BEGIN	2020-04-08 18:15:00 EDT	2020-04-08 18:15:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Didi-AfterHours	Network stopper	END	2020-04-08 19:45:00 EDT	2020-04-08 19:45:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Rowley	Network starter	END	2020-04-08 21:00:00 EDT	2020-04-08 21:00:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️
●	Rowley	Network starter	BEGIN	2020-04-09 09:00:00 EDT	2020-04-09 09:00:00 EDT	1 sec	🗑️ ⚙️ ⓘ 🗑️

Figure 7: Logs screen

The following information is provided for each event on the **Logs** screen:

Status

Event status. Valid values are:

- Green — Successfully running.
- Yellow — Trouble in execution. Configuration necessary.
- Red — Failed. Not running.

Event

Name of the event. Events are limited to enabling and disabling a network SSID. Provide a descriptive event name. You can sort alphabetically by Event Name.

Type

Event type. Events are limited to enabling and disabling a network SSID. Valid values are:

- Network Start

- Network Stop

Stage

Indicates if the event has been started or stopped. You can sort by Stage value. Valid values are:

- Begin
- End

Scheduled At

Date and time the event was scheduled to run.

Started At

Date and time the event actually ran.



Note

Factors such as system status or system load can impact the Start and Duration of an event. Details for specific events are provided on the **Dashboard** and **Logs** page.

Duration

Duration of the event.

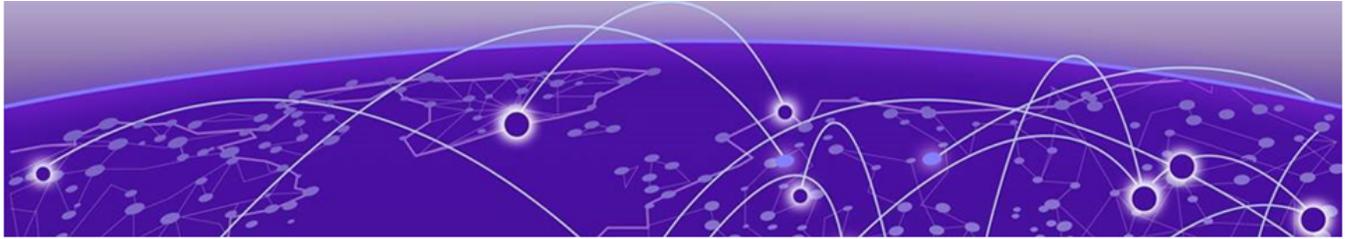
Actions

Actions you can take on an event. Valid values are:

-  Go to event **Scheduler** screen. In the new view, the event briefly flashes making it easy to identify.
-  View event parameters.
-  View log details about event execution.
-  Delete event.

Related Topics

[Add Scheduled Events](#) on page 17



Services

Configure Services on page 23

Go to **Services** to view a list of services deployed to Scheduler application.

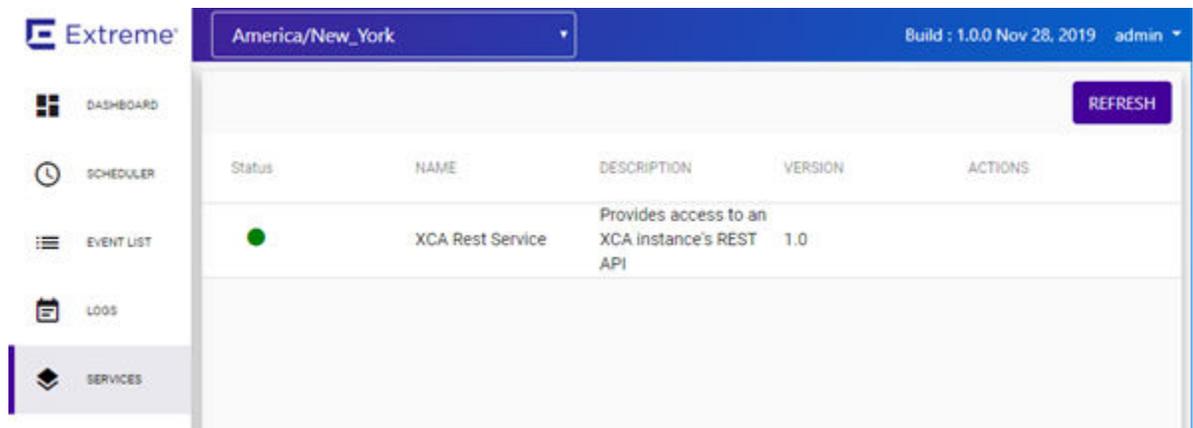


Figure 8: Services screen

The current status of each service is displayed:

- Green — Successfully running.
- Yellow — Trouble in execution. Configuration necessary.
- Red — Failed. Not running.

If the service allows configuration,  is displayed in the **Actions** column. Select  to configure the service.



Note
Not all services allow user configuration.

Related Topics

[Configure Services on page 23](#)

Configure Services

Go to **Services** to view a list of services deployed to Scheduler application.

If the service allows configuration,  is displayed in the **Actions** column. Select  to configure the service.

**Note**

Not all services allow user configuration.

The following parameters are used to access the server where the service is running:

User

User ID

Password

Password

Server

Server address

Related Topics

[Services](#) on page 23