

Set Up Meraki Camera

This chapter provides information about the configurations required in Cisco Spaces for Meraki Camera.

- Prerequisites, on page 1
- Set up Cisco Spaces to Work with Cisco Meraki Camera, on page 3
- Configure a Meraki Camera, on page 3
- Edit the Trip Wire for a Camera, on page 6
- Manage Camera Configuration, on page 7

Prerequisites

To set up your Meraki Camera, you must connect Meraki Video Cameras to Cisco Spaces so Cisco Spaces can receive Meraki video analytics data.

You can use the Cisco Meraki configuration to support visitor count and camera-driven analytics use cases within Cisco Spaces applications.

When the camera widget is not already available, you must first enable the camera experience from the **Setup** > **Camera** before continuing with the Cisco Meraki connection flow.

For new Meraki camera onboarding, use Meraki API Key or Meraki Integration. Use Meraki Login only if the account is already connected to Cisco Spaces through Meraki Login.

Before You Begin

Make sure you have:

- Access to Cisco Spaces
- A valid Meraki API key
- Meraki cameras with MV Sense licenses
- Permission to connect or manage Meraki synchronization
- Camera networks already configured in Meraki Dashboard

Before starting the camera configuration workflow, make sure the Cisco Meraki camera environment is ready for integration.

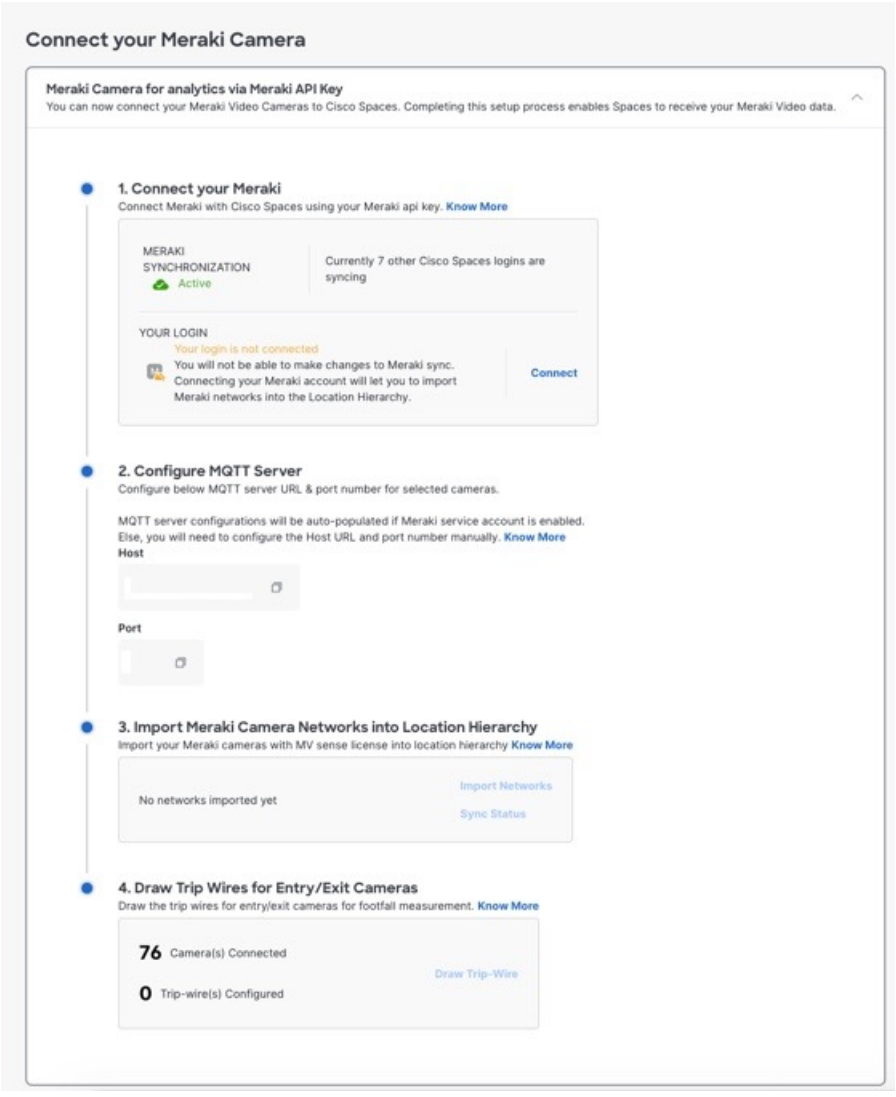
1. The camera is enabled in Meraki.
2. The required Meraki MV Sense license is available.

3. The camera and related network are ready for Cisco Spaces onboarding.

The Camera setup workflow has four high-level steps:

1. Connect your Meraki
2. Configure MQTT Server
3. Import Meraki Camera Networks into Location Hierarchy
4. Draw Trip Wires for Entry/Exit Cameras

Figure 1: Prerequisites



Set up Cisco Spaces to Work with Cisco Meraki Camera

Cisco Spaces uses Cisco Meraki Cameras to determine the number of visitors who enter and exit a location and the number of visitors currently present at the location. To use this feature, connect Cisco Meraki Cameras to Cisco Spaces through Meraki API Key or Meraki Integration. Meraki Login is supported only for accounts that are already connected to Cisco Spaces through Meraki Login. Make sure that the cameras are installed, can reach the Meraki cloud server, and have valid Meraki MV Sense licenses.

You can capture these details using the **Camera** feature:

- The total number of visits entering a location.
- The total number of visits leaving a location.
- The total number of visitors currently present at a location.

Note If a visitor exits the tripwire line and enters the tripwire line again, the new entry is counted as a separate visit.

You can view the visitor count using the **Camera Metrics** and **Live Occupancy** apps available in the Cisco Spaces dashboard.

Configure a Meraki Camera

Procedure

Step 1 In the Cisco Meraki dashboard, configure the cameras on the required Meraki network. For more information about configuring the cameras on the Meraki network, see Configuring Cameras.

Step 2 In the Cisco Spaces dashboard, click the **Menu** icon ( ) and choose **Setup** > **Camera**.

The **Connect your Camera** window is displayed.

Step 3 Click **Get Started**.

Note If connected to the Cisco Meraki earlier, the widget corresponding to the connection method used is displayed automatically in the **Connect your Camera** window. In such cases, **Get Started** is not displayed. To connect to Cisco Meraki using the same connection method (Login, API Key) for configuring the Meraki camera, skip Step 4 to Step 6. However, to connect through the alternate connection method, add the corresponding widget using **Add New**. If widgets are added for both connection methods (through login and API key), **Add New** is disabled.

Step 4 Click **Select** to indicate the method that you wish to connect Cisco Meraki to Cisco Spaces.

The window displays the prerequisites for the selected method. For more information about the methods, see Setting Up Cisco Spaces to Work with Various Wireless Networks.

Step 5 Click **Continue Setup**.

In the **Connect your wireless network** window, a widget that allows connecting the camera is displayed.

The widget that is displayed depends on the method selected in Step 6. For the **Connect Via Meraki Login** method, the widget displayed is **Meraki Camera for analytics via Meraki Login**. For the **Connect via API Key** method, the widget displayed is **Meraki Camera for analytics via Meraki API Key**.

Step 6 In the expanded widget, click **Connect** displayed at Step 1.

If already connected to the Cisco Meraki network using the same connection method, the instruction for Step 1 is replaced with the message indicating that you are connected, and the **Connect** link is displayed. In such cases, skip this step.

a) For the **Meraki Camera for analytics via Meraki Login** widget, a window displays with fields to enter e-mail and password for login. Enter the login credentials, and click **Submit**. After connecting successfully, the content in Step 1 is replaced with the following message: `Connected as [e-mail using which you have connected].`

b) For the **Meraki Camera for analytics via Meraki API Key** widget, a window is displayed with an **API Key** field. Enter the API Key, and click **Submit**. After connecting successfully, the content in Step 1 gets replaced with the message `"Connected with [ masked API key]"`.

Step 7 Click **Import Networks** displayed in Step 2 in the **Connect your Meraki Camera** window.

If the camera network is already imported to the Location Hierarchy section, then skip Step 9 to Step 13.

Step 8 In the **Import Networks** window, select the parent location or root location under which you want to import the Meraki camera networks.

Step 9 From the **Choose Networks** area, select the check boxes for the Meraki networks that you want to import.

Step 10 Click **Import**.

The total number of Meraki networks and cameras that are imported are displayed.

Step 11 Click **Finish**.

The Meraki Camera configurations in Cisco Meraki will get automatically synchronized with Cisco Spaces. Typically, it gets auto-configured in 48 hours. If there is a delay, manually configure the MQTT server details in Cisco Meraki as explained in the following step.

Step 12 If want to manually configure the MQTT Server details in Cisco Meraki, perform the following:

The host and port of the MQTT server are account-specific and are displayed in Step 3 within the Cisco Spaces **Connect your Meraki Camera** window. You must configure these MQTT server details in Cisco Meraki.

a) Log in to the Cisco Meraki dashboard.

b) From the menu in the left pane of the dashboard, choose **Cameras** > **Cameras**.

c) In the **Name** field, click the link for the camera for which you want to configure the MQTT server.

The details of the selected camera are displayed. The **Video** tab for the camera is displayed by default.

d) Click the **Settings** tab, and click **Sense**.

e) To the right of Sense API, click **Enabled**.

f) Click the **Add or Edit MQTT Brokers** link.

g) In the **Edit MQTT Brokers** window, click **New MQTT Broker**.

h) In the **Edit MQTT Broker** window that is displayed, enter the following MQTT server details:

- **Host**: Enter the following host details:
  - For users hosted in the U.S. region: **`mqtt.dnaspaces.io`**
  - For users hosted in European region: **`mqtt.dnaspaces.eu`**
  - For users hosted in Singapore region: **`mqtt.ciscospaces.sg`**
- **Port**: Enter port as 1883. You must ensure that traffic from Cisco Meraki is allowed through the port 1883.

i) Click **Save**.

Step 13 To configure the entry or exit line for the camera, click **Draw Trip Wire** in Step 4 in the **Connect your Meraki Camera** window.

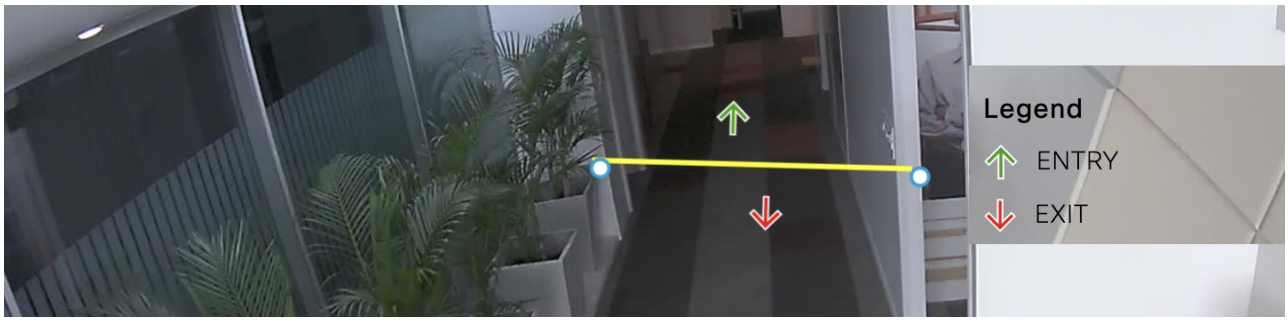
Note The camera metrics are calculated only at the location level. Ensure that there is a camera at every entrance to a location where metrics are desired and that the tripwire is drawn for each of those cameras. To ensure accuracy, cameras should be placed in close proximity to an entrance with a clear view of the entire entry or exit point. Tripwire should be drawn several feet off the floor at the point of entry or exit. Do not draw a tripwire for any cameras at a location that is not located at a location-level entry or exit point.

Step 14 In the **Draw Trip-Wire** window that is displayed, click **Select Locations**, choose the location in which the camera is configured, and click **Done**.

Step 15 In **Select a camera you wish to draw the trip-wire** area, select the radio button for the camera for which you want to set the trip wire, and click **Next**.

Step 16 Create the trip-wire by drawing a line on the camera preview image using +.

By default, the entry and exit arrows display in the middle of the tripwire. The green arrow represents the entry and the red arrow represents the exit. Ensure that the entry and exit arrows are pointing in the direction shown in the following image. If the arrows are not positioned properly, then click and hold the blue outlined dot at the end of the tripwire line and drag the mouse to rotate the line and arrow.



Note The tripwire functions only if the Cisco Meraki Service account is configured.

Step 17 Click both the endpoints of the line to configure the XY coordinates. After clicking the endpoints of the line, the XY coordinates for the entry and exit arrows are displayed automatically in the **Trip-wire status** area, and the status gets changed to **Set**. By default, the status will be **Not Set**.

Note The status will be changed to **Set** only if you click both endpoints of the line.

Step 18 Click **Finish**.

The camera is configured to use in Cisco Spaces.

What to do next

Cisco Spaces **Right Now** app also reports zone-level presence data, if you have configured camera zones in Cisco Meraki. To define zones for each camera, refer to Cisco Meraki documentation.

Edit the Trip Wire for a Camera

To edit the XY coordinates of the trip wire for a camera, perform the following steps:

Procedure

Step 1 In the Cisco Spaces dashboard, click the **Menu** icon ( ) and select **Setup** > **Camera**.

The **Connect your Camera** window appears.

Step 2 In the **Connect your Camera** window, expand the Meraki camera connection widget.

Step 3 In Step 4: **Draw Trip Wire**, click **Draw-Trip Wire**.

Step 4 Click **Select Locations**, select the location where the camera is configured.

Step 5 Click **Done**.

Step 6 If needed, search for the camera and select it.

Step 7 Click **Next**.

Step 8 On the camera preview image, adjust the trip-wire line and entry or exit direction as required.

Step 9 Click **Finish**.
Success window appears.

Step 10 Click **Continue** to return to the **Connect your Camera** window.

Step 11 Click **Go to camera list** to return to the **Draw Trip Wire** window.

Manage Camera Configuration

After setup is complete, manage the configured camera workflow from the **Setup** > **Camera** by performing these actions:

- Disconnect or remove an existing API key.
- Review the synchronization state using **Sync Status**.
- Reopen Draw Trip-Wire to update camera trip wires.
- Import additional camera networks as needed.