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# Monitoring Cisco Meraki

Beta Version

Cisco: Meraki PowerPack version 100

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# Chapter 1

## Introduction

### Overview

This manual describes how to monitor Cisco Meraki access points, switches, phones, and cameras in the ScienceLogic platform using the *Cisco: MerakiPowerPack*.

The following sections provide an overview of Cisco Meraki and the *Cisco: Meraki PowerPack*:

- What is Cisco Meraki?* ..... 3
- What Does the Cisco: Meraki PowerPack Monitor?* ..... 4
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### What is Cisco Meraki?

Cisco Meraki provides a set of networking devices and appliances that you can manage from the cloud. Cisco Meraki's centralized cloud architecture enables you to securely monitor users, applications, and devices in your environment.

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## What Does the Cisco: Meraki PowerPack Monitor?

To monitor Cisco Meraki devices using the ScienceLogic platform, you must install the *Cisco: Meraki PowerPack*. This PowerPack enables you to discover, model, and collect data about Cisco Meraki appliances.

The *Cisco: Meraki PowerPack* includes:

- An example credential that you can use as a template to create an SNMP credential for connecting to Cisco Meraki devices.
- Dynamic Applications and a Run Book Action to discover, model, and monitor performance metrics and collect configuration data Cisco Meraki devices
- Device Classes for each of the Cisco Meraki devices that the ScienceLogic platform monitors
- Event Policies and corresponding alerts that are triggered when Cisco Meraki devices meet certain status criteria

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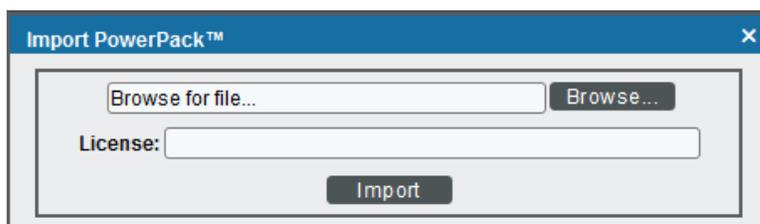
## Installing the Cisco: Meraki PowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Cisco: Meraki PowerPack*.

To download and install a PowerPack:

**TIP:** By default, installing a new version of a PowerPack overwrites all content in that PowerPack that has already been installed on the target system. You can use the **Enable Selective PowerPack Field Protection** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the **System Administration** manual.)

1. Download the PowerPack from the [ScienceLogic Customer Portal](#).
2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.
4. The **Import PowerPack** dialog box appears:



5. Click the **[Browse]** button and navigate to the PowerPack file.
6. When the **PowerPack Installer** modal page appears, click the **[Install]** button to install the PowerPack.

**NOTE:** If you exit the **PowerPack Installer** modal page without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPack Manager** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal page. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

## Configuring Cisco Meraki for Monitoring

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### Overview

The following sections describe how to configure Cisco Meraki for monitoring by the ScienceLogic platform using the *Cisco: Meraki PowerPack*:

<i>Creating an SNMP Credential</i> .....	6
<i>Using the Cisco Meraki Dynamic Applications</i> .....	8
<i>Discovering Cisco Meraki Component Devices</i> .....	8
<i>Viewing Cisco Meraki Component Devices</i> .....	10

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### Creating an SNMP Credential

To configure the ScienceLogic platform to monitor Hitachi VSP systems, you must first create a SNMP credential. This credential allows the Dynamic Applications in the *Cisco: Meraki PowerPack* to connect with a Cisco Meraki device. An example SNMP credential that you can edit for your own use is included in the *PowerPack*.

To create an SNMP credential:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **Cisco: Meraki Example** credential, and then click its wrench icon (🔧). The **Edit Basic/Snippet Credential** modal page appears.

The screenshot shows the 'Credential Editor [165]' window. The title bar includes 'New' and 'Reset' buttons. The main content is divided into three sections: 'Basic Settings', 'SNMP V1/V2 Settings', and 'SNMP V3 Settings'.  
- **Basic Settings:** Profile Name is 'CiscoMeraki\_XYZ-Lab', SNMP Version is '[ SNMP V2 ]', Port is '16100', Timeout(ms) is '3000', and Retries is '3'.  
- **SNMP V1/V2 Settings:** SNMP Community (Read-Only) is 'string1' and SNMP Community (Read/Write) is 'sting1'.  
- **SNMP V3 Settings:** Security Name and Security Passphrase are empty. Authentication Protocol is 'MD5', Security Level is 'No Authentication / No Encryption', and SNMP v3 Engine ID is empty. Context Name is empty, Privacy Protocol is 'DES', and Privacy Protocol Pass Phrase is empty.  
At the bottom, there are 'Save' and 'Save As' buttons.

3. Complete the following fields:
  - **Profile Name.** Type a new name for the Cisco: Meraki credential.
  - **SNMP Version.** SNMP version. Choices are *SNMP V1*, *SNMP V2*, and *SNMP V3*. The default value is *SNMP V2*.
  - **Port.** Type "16100" for the port the platform will use to communicate with the device.
  - **Timeout.** Type "30000" for the time, in milliseconds, after which the platform will stop trying to communicate with the device.
  - **Retries.** Number of times the platform will try to authenticate and communicate with the device.
  - Complete the **SNMP Community** fields as needed.
4. Click the **[Save As]** button.
5. When the confirmation message appears, click **[OK]**.

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## Using the Cisco Meraki Dynamic Applications

The Dynamic Applications in the Cisco: Meraki PowerPack are divided into four types:

- **Counts.** These Dynamic Applications poll Cisco Meraki to determine the number of component devices monitored by the ScienceLogic platform.
- **Discovery.** These Dynamic Applications poll Cisco Meraki for new instances of services or changes to existing instances of services.
- **Configuration.** These Dynamic Applications retrieve configuration information about each service instance and retrieve any changes to that configuration information.
- **Performance.** These Dynamic Applications poll Cisco Meraki for performance metrics.

**NOTE:** The Dynamic Applications in this PowerPack are automatically aligned.

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## Discovering Cisco Meraki Component Devices

To model and monitor your Cisco Meraki devices, you must run a discovery session to discover the Cisco Meraki component devices that the ScienceLogic platform will use as the root devices for monitoring the applications.

After the discovery session completes, the Dynamic Applications in the *Cisco: Meraki* PowerPack automatically align to the component device, and then the PowerPack discovers, models, and monitors the remaining Cisco Meraki devices.

To discover the devices that you want to monitor:

1. Go to the **Discovery Control Panel** page (System > Manage > Discovery).
2. On the **Discovery Control Panel**, click the **[Create]** button.

- The **Discovery Session Editor** page appears. On the **Discovery Session Editor** page, define values in the following fields:

The screenshot shows the 'Discovery Session Editor | Editing Session [22]' window. It is divided into four main sections:

- Identification Information:** Name: CiscoMeraki\_XYZ-Lab, Description: Cisco Meraki Discovery.
- IP and Credentials:** IP Address/Hostname Discovery List: snmp.meraki.com. SNMP Credentials: CiscoMeraki\_snmpsim\_69, CiscoMeraki\_XYZ-Lab.
- Detection and Scanning:** Initial Scan Level, Scan Throttle, Port Scan All IPs, Port Scan Timeout: [System Default (recommended)]. Detection Method & Port: TCP: 443 - https. Interface Inventory Timeout (ms): 600000. Maximum Allowed Interfaces: 10000. Bypass Interface Inventory: .
- Basic Settings:** Discover Non-SNMP: . Model Devices: . DHCP: . Duplication Protection: . Collection Server PID: 3. Organization: CiscoMeraki\_CBTS-Lab.org.

Buttons at the bottom include 'Save', 'Save As', and 'Log All' (checked).

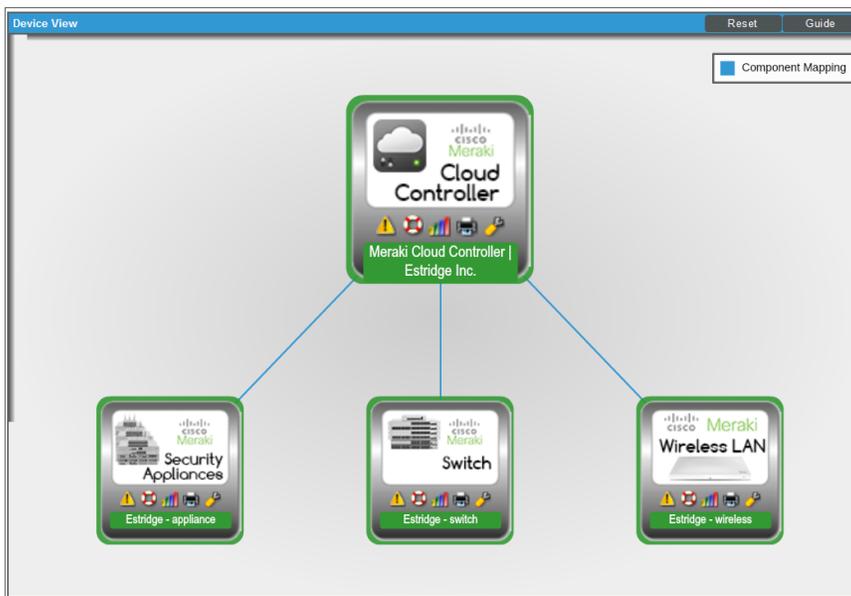
- **IP Address/Hostname Discovery List.** Type the IP address or hostname for the set of Cisco Meraki devices that you want to monitor.
  - **SNMP Credentials.** Select the SNMP credential you created that is specific to the set of Cisco Meraki devices that you want to monitor.
  - **Detection Method & Port:** Select *TCP: 443 - https*.
  - **Discover Non-SNMP.** Select this checkbox.
  - **Model Devices.** Select this checkbox.
  - **Duplication Protection.** Select this checkbox.
- Optionally, you can enter values in the other fields on this page. For more information about the other fields on this page, see the **Discovery & Credentials** manual.
  - Click the **[Save]** button, and then close the **Discovery Session Editor** window.
  - The discovery session you created appears at the top of the **Discovery Control Panel** page. Click its lightning-bolt icon (⚡) to run the discovery session.
  - After the virtual device is created and the Cisco Meraki devices are discovered, click the device icon (🖨) to view the **Device Properties** page for each device.

- Repeat steps 2-7 for every set of Cisco Meraki devices you want to monitor, using a different SNMP credential for each set of devices.

## Viewing Cisco Meraki Component Devices

In addition to the **Device Manager** page (Registry > Devices > Device Manager), you can view the Cisco Meraki devices in the following places in the user interface:

- The **Device View** modal page (click the bar-graph icon [img alt="bar graph icon"] for a device, then click the **Topology** tab) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page to make the selected device the primary device:



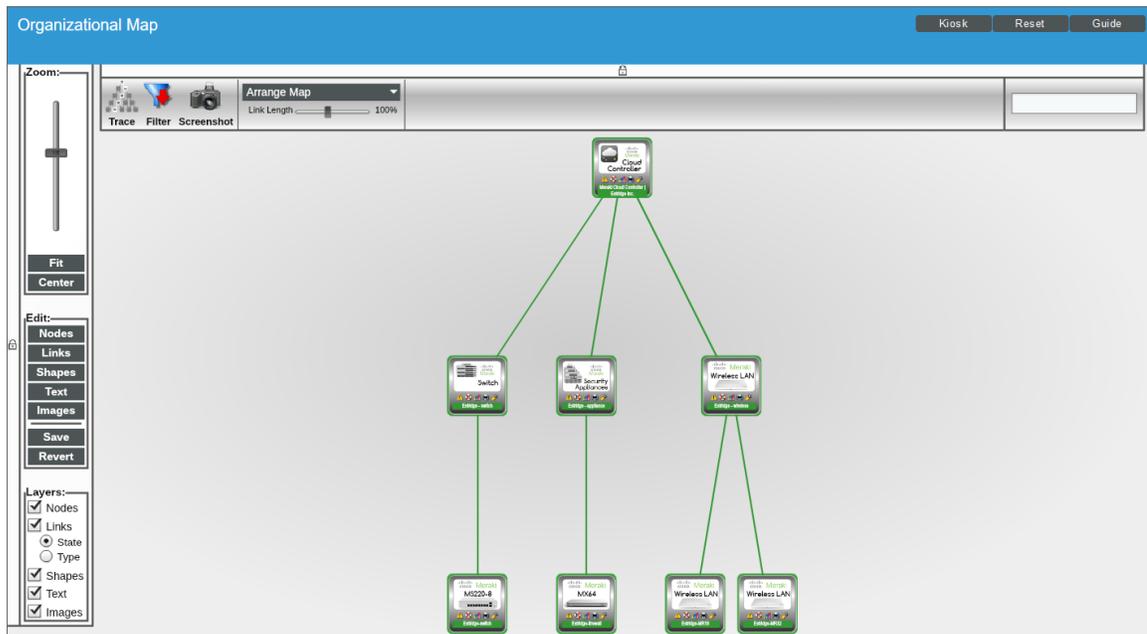
- The **Device Components** page (Registry > Devices > Device Components) displays a list of all root devices and component devices discovered by the ScienceLogic platform in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with Cisco Meraki, find the Cisco Meraki root device and click its plus icon (+):

Device Components | Devices Found [2] Actions Reset Guide

	Device Name	IP Address	Device Category	Device Class   Sub-class	DID	Organization	Current State	Collection Group	Collection State																																													
1. +	Meraki Cloud Controller   CBTS	--	Virtual	Cisco Systems   Meraki Cloud Cont	6182	CiscoMeraki_CBTS-Noram	Healthy	CUG1	Active	  																																												
2. -	Meraki Cloud Controller   Estrid	--	Virtual	Cisco Systems   Meraki Cloud Cont	6180	CiscoMeraki_Estridge-Horn	Healthy	CUG1	Active	  																																												
<div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;"> <table border="1"> <thead> <tr> <th></th> <th>Device Name</th> <th>IP Address</th> <th>Device Category</th> <th>Device Class   Sub-class</th> <th>DID</th> <th>Organization</th> <th>Current State</th> <th>Collection Group</th> <th>Collection State</th> <th></th> </tr> </thead> <tbody> <tr> <td>1. +</td> <td>Estridge - appliance</td> <td>--</td> <td>Network</td> <td>Cisco Systems   Meraki Security A</td> <td>6186</td> <td>CiscoMeraki_Estridge-Horn</td> <td>Healthy</td> <td>CUG1</td> <td>Active</td> <td>  </td> </tr> <tr> <td>2. +</td> <td>Estridge - switch</td> <td>--</td> <td>Network</td> <td>Cisco Systems   Meraki LAN Netw</td> <td>6185</td> <td>CiscoMeraki_Estridge-Horn</td> <td>Healthy</td> <td>CUG1</td> <td>Active</td> <td>  </td> </tr> <tr> <td>3. -</td> <td>Estridge - wireless</td> <td>--</td> <td>Network</td> <td>Cisco Systems   Meraki Wireless</td> <td>6187</td> <td>CiscoMeraki_Estridge-Horn</td> <td>Healthy</td> <td>CUG1</td> <td>Active</td> <td>  </td> </tr> </tbody> </table> </div>												Device Name	IP Address	Device Category	Device Class   Sub-class	DID	Organization	Current State	Collection Group	Collection State		1. +	Estridge - appliance	--	Network	Cisco Systems   Meraki Security A	6186	CiscoMeraki_Estridge-Horn	Healthy	CUG1	Active	  	2. +	Estridge - switch	--	Network	Cisco Systems   Meraki LAN Netw	6185	CiscoMeraki_Estridge-Horn	Healthy	CUG1	Active	  	3. -	Estridge - wireless	--	Network	Cisco Systems   Meraki Wireless	6187	CiscoMeraki_Estridge-Horn	Healthy	CUG1	Active	  
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[Select Action] Go

- The **Component Map** page (Views > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. The ScienceLogic platform automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for Cisco Meraki devices, go to the **Component Map** page and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the **Views** manual.



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