

# Meraki MX60 Hardware Installation Guide

August 2011





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## Scope of the Document and Related Publications

The MX60 Hardware Installation Guide describes the installation procedure for the MX60 MX60s. Additional reference documents are available online at: [www.meraki.com/library/products](http://www.meraki.com/library/products).

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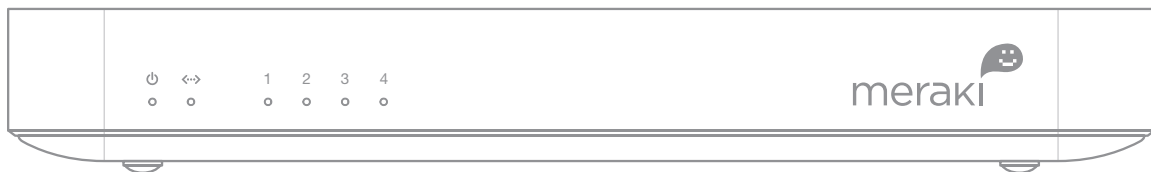
# 1 MX60 Overview

The Meraki MX60 is an enterprise router designed for distributed deployments that require remote administration. It is ideal for network administrators who demand both ease of deployment and a state-of-the-art feature set.

## 1.1 Package Contents



## 1.2 The MX60 Front Panel



There are 3 types of LED in MX60

- Power light: First one from the left.
- WAN light: Second one from the left.
- LAN lights: The four LEDs that are grouped together and numbered 1 – 4.

### 1.2.1 LED Color Rules

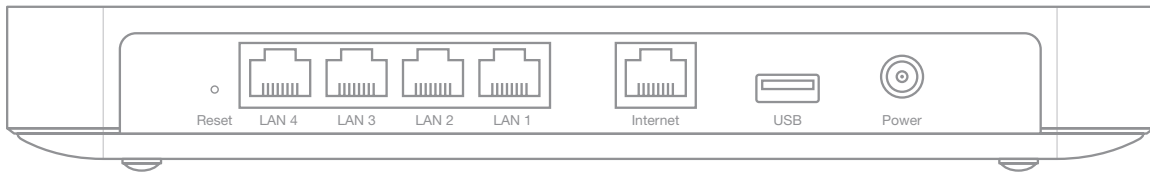
- Solid Green: Fully operational.
- Flashing Green: Operational but operation in progress (e.g. upgrade).
- Solid Orange: Attempting to establish connection.
- Flashing Orange: Alert indicating that device requires attention. Dashboard will contain additional information about the alert.

### 1.2.2 Power-on Sequence

1. All lights will flash twice on power on.
2. Power light will turn solid orange after the flash.
3. Power light will turn green after the unit has been able to contact the Meraki dashboard and download its configuration.
4. WAN light will be off during boot and when no WAN link.
5. WAN light will turn orange after boot up and initial link.

6. WAN light will turn green when Internet connection detected.
7. WAN light will start flashing orange after 5 minutes, if a WAN link is found, but there is no proper Internet connection.
8. LAN lights will turn green if any device is connected on the LAN side or they will be off otherwise.

### 1.3 The MX60 Back Panel



#### 1.3.1 Internet Port

The MX60 supports only one Internet / WAN connection.

#### 1.3.2 LAN Ports

The MX60 has four LAN ports, called LAN 1, LAN 2, LAN 3, and LAN 4. These ports can be connected to devices like computers, printers, access points, or Ethernet switches.

#### 1.3.3 USB Port

The MX60 has one USB 2.0 port. This port is reserved for future use.

#### 1.3.4 Reset Button

A short press of 1s to 10s will force the device to delete its configuration downloaded from the Dashboard and reboot. This will not remove the locally configured WAN IP settings. A long press of > 10s will force the unit into a full factory reset

## 2 Pre-Deployment Setup

### 2.1 Dashboard Settings

#### 2.1.1 Setting Up a New Dashboard Account

*Step 1: Create an account.*

To manage Meraki networks through the Dashboard, you need to create an account at <http://dashboard.meraki.com>.

*Step 2: Add an MX60 to your account.*

After logging into your account, click on “Configure” and then “Add router.” Enter the order number or the serial number of the MX60, choose a name for the router, and provide the router’s physical location (in order to accurately place it on the integrated Google map or floor plan). Click the “Add routers” button on the bottom of the page.

#### 2.1.2 Using an Existing Dashboard Account

If you have an existing Dashboard account (organization) that you use for Meraki wireless networks, you need to create a separate network in the Dashboard for each MX60 that you plan to deploy.

You can use the “Network” pull-down option to create a new network and add the MX60 serial number to the newly created network

### 2.2 Firewall Settings

If your MX60 will be placed behind a firewall, you will need to allow outgoing connections on particular ports to particular IP addresses. The most current list of outbound ports and IP addresses can be found here:

<http://tinyurl.com/y79une3>

### 2.3 Local Management Console

If you need to assign static IP to the MX60, you need to use the local management console. The local console provides additional connectivity status information, such as whether an upgrade is in progress or the device is connected to the Internet.

To access the local management console, simply follow these instructions:

1. Connect the router to a power supply.
2. Using a client machine (e.g., a laptop), connect to the MX60 through any of the LAN ports (by plugging one end of an Ethernet cable into the client machine, and the other end of the Ethernet cable into the one of the router’s LAN ports).
3. Using a web browser on the client machine, access the router’s built-in web server by browsing to <http://setup.meraki.com>.

- Note that you do not have to be connected to the Internet to reach this address, as you are simply connecting to a web service running locally on the router.
- In the event your ISP requires you to handle PPPoE termination, this can be configured on the same local setup page. Please specify the connection type as “PPPoE” and provide the required username and password (if applicable) to properly terminate the connection.
- If your WAN uplink is on a trunk port, you will need to specify the correct VLAN. To do so, please visit <http://setup.meraki.com> and specify the correct VLAN tag ID to allow your device to properly connect.

## Device configuration

Use this page to configure the uplink Internet connection on this Meraki device.

VLAN tagging	<input type="text" value="Don't use VLAN tagging"/>
VLAN ID	<input type="text" value="0"/>
Connection Type	<input type="text" value="PPPoE"/>
Authentication	<input type="text" value="No authentication"/>
Username	<input type="text"/>
Password	<input type="text"/>
IP Assignment	<input type="text" value="Dynamic"/>
Address	<input type="text" value="0.0.0.0"/>

## 2.4 Network Settings

All Meraki MX60 devices must have an IP address. The following section describes how to configure your local area network prior to deploying a Meraki MX60. Please check with your ISP to make sure you have the adequate Ethernet handoff device (e.g., T1, MPLS, ADSL or Cable modem), as the MX60 only supports RJ45 Ethernet connectivity.

### 2.4.1 Router Mode: Gateway to the Internet

In router mode, the MX60 will provide network address translation (NAT) services. Therefore it requires two IP addresses, one that is recognized by the WAN interface and another that is recognized by the LAN interface.

#### *Internet (WAN) IP address settings:*

By default the router will obtain the configuration for its Internet port via DHCP. If this is compatible with your upstream Internet connection, no local configuration of the Internet port is required.



If you need to set static IP address for the Internet port, please follow these instructions:

1. If you need to assign static IP address, connect to the router's local management console using the instructions in section 2.3.
2. Follow the on-screen instructions to set up a static IP address.
3. Now connect the Internet port on the router to your ISP modem or the upstream device that is ultimately connected to the WAN.
4. On your client machine, connected to one of the LAN ports, go to <http://dashboard.meraki.com>.
5. Login to your account and go to the network that you already created for the new MX60 (see section 2.1). Confirm that your router is connected to the Dashboard and that the status is online. If you have a problem, visit the Meraki online knowledge base at: <http://www.meraki.com/support/>.
6. You are now ready to begin monitoring your network through the Meraki Dashboard.

#### LAN IP address settings:

These settings let you create a new local subnet that will be served through the LAN 1 – LAN 4 ports of the MX60.

1. Using a web browser on the client machine (e.g., a laptop), go to <http://dashboard.meraki.com>.
2. Login to your account and go to the network that you already created for the new MX60 (see section 2.1). Confirm that your router is connected to the Dashboard and that the status is online.
3. Navigate to "Configure ->Router settings."
4. Choose "Run NAT only" or "Run a DHCP server and NAT."
5. Choose a local subnet base address and subnet mask.
6. Choose an IP address for the MX60. Please note that if you have chosen "Run a DHCP server and NAT," Dashboard will prepopulate the "Router IP" field with a suitable IP address for the MX60. If necessary, you can override the IP address with a choice of your own.
7. Set up your DNS servers. You can use settings for Google DNS, OpenDNS, or provide IPs for custom servers.
8. To test your settings, refresh your laptop / desktop network settings (e.g., simply disconnect the client device from the LAN port of the MX60 and then connect it again). If you have a problem, visit the Meraki online knowledge base at <http://www.meraki.com/support/>.

9. You are now ready to begin monitoring your network through the Meraki Dashboard.

#### 2.4.2 Passthrough Mode

In passthrough mode, the Meraki MX60 is transparent to the rest of the network. You should use passthrough mode if you don't want your router to provide NAT functions. In this mode, the router requires one IP address in order to communicate with the Meraki Cloud Controller

*Internet (WAN) IP address settings:*

If you need to set static IP address, please follow the same instructions for WAN IP configuration from the Router Mode section above.