Meraki MX70
Hardware Installation Guide

January 2011

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Scope of the Document and Related Publications

The MX70 Hardware Installation Guide describes the installation procedure for the MX70 cloud-managed routers. Additional reference documents are available online at: www.meraki.com/library/products.
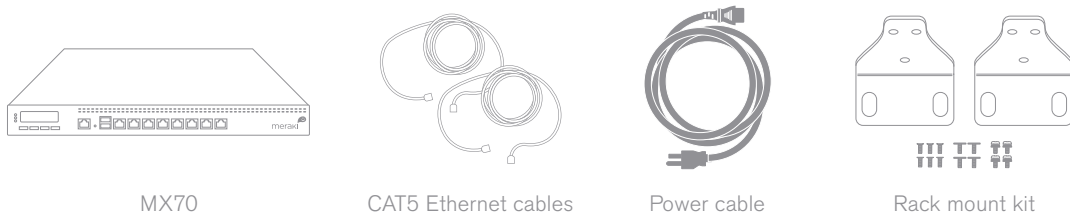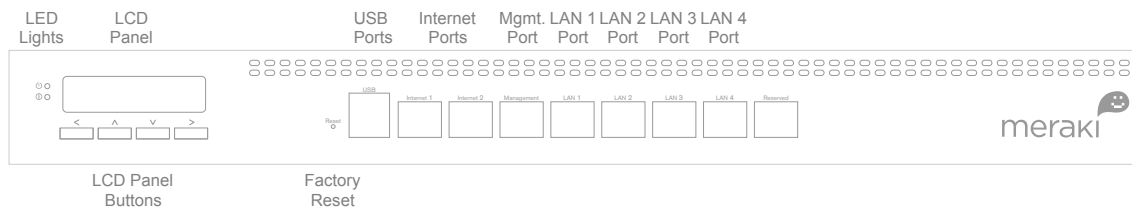
Table of Contents

1   MX70 Overview

The Meraki MX70 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

MX70   CAT5 Ethernet cables   Power cable   Rack mount kit

1.2   The MX70 Front Panel

LED Lights   LCD Panel   USB Ports   Internet Ports   Mgmt. Port   LAN 1 Port   LAN 2 Port   LAN 3 Port   LAN 4 Port

LCD Panel Buttons   Factory Reset

1.2.1   Internet Ports

The MX70 has two WAN ports, called Internet 1 and Internet 2. Currently, only Internet 1 port is active.

1.2.2   LAN Ports

The MX70 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.

1.2.3   Management Ports

All Meraki routers come equipped with a local management console that is accessible with a web browser. The management console is primarily used to set a static IP address prior to connecting the MX70 to the Internet or WAN network. To access the local management console, simply connect a client machine (e.g., a laptop) to MX70's Management port and, using any web browser, login to http://setup.meraki.com. See section 2.3 for more information.

1.2.4   USB Ports

The MX70 has two USB 2.0 ports. These ports are reserved for future use.

1.2.5   Factory Reset Button

Pushing the reset button will default the MX70 to its factory-reset values.

1.2.6   LED Lights

Upper green LED light means the power is on.

Lower orange LED light, when lit, signals an alert that requires attention. Dashboard will contain additional information about the alert.

1.2.7   LCD Panel

The LCD panel will display the model number as well as the serial number of the device.

1.2.8   LCD Panel Buttons

The LCD Panel buttons are reserved for future use.

1.3   Powering the MX70

The MX70 has a power-on switch in the back panel. To power it down, simply unplug the power cord.

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. Assuming you are the network administrator, your email address will be used as the login ID.

Step 2: Add a Cloud-Managed Router to your account.

After logging into your account, click on "Configure" and then "Add routers." Enter the order number or the serial number of the Cloud-Managed Router, 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 that you use for Meraki wireless, you need to create a separate network in the Dashboard for each Cloud-Managed Router that you plan to deploy.

Follow Step 2 above to add a Cloud-Managed Router to your account. You can use the "Network" pull-down option on the overview page to navigate between networks.

2.2   Firewall Settings

If your Cloud-Managed Router 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

The web-based Meraki Dashboard is the primary management interface for any Meraki device. However, there are a few scenarios in which applying settings remotely through the cloud can be problematic. These scenarios include:

- Assigning a static IP to the device.

- Viewing some local settings, such as whether an upgrade is in progress or the device is connected to the Internet.

To accommodate these infrequent scenarios, all Meraki routers come equipped with a local management console that is accessible with a

web browser. 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 Cloud-Managed Router through the management port (by plugging one end of an Ethernet cable into the client machine, and the other end of the Ethernet cable into the router's management port).

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 merely connecting to a web service running locally on the router.

2.4   Network Settings

All Meraki Cloud-Managed Routers must have an IP address. The following section describes how to configure your local area network prior to deploying a Meraki Cloud-Managed Router. 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 Cloud-Managed Router only supports RJ45 Ethernet connectivity.

2.4.1   Router Mode: Gateway to the Internet

In router mode, the Cloud-Managed Router 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:

These settings will allow you to set up the IP address of the router's Internet port. Without a proper Internet connection, the router cannot connect to the Dashboard, and without a Dashboard connection, the router will not function. If the router will get its Internet (WAN) IP settings through DHCP, you can skip these instructions.

1. If you need to assign a 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 1 port on the router to your ISP modem or the upstream device that is ultimately connected to the WAN.

4. Disconnect the client machine from the router's management port and reconnect it to any of the LAN ports (1 through 4) of the Cloud-Managed Router.

5. Go to http://dashboard.meraki.com.

6. Login to your account and go to the network that you already created for the new Cloud-Managed Router (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/.

7. 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 Cloud-Managed Router.

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 Cloud-Managed Router (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 Cloud-Managed Router. 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 Cloud-Managed Router. If necessary, you can override the IP address with a choice of your own.

7. Set up your DNS servers. You can either use Google's or OpenDNS' servers or simply enter your own DNS server instruction.

8. Optionally, provide the DNS domain information for your organization.

8. To test your settings, refresh your laptop / desktop network settings (e.g., simply disconnect the client device from the LAN port of the Cloud-Managed Router 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: Behind an Existing Router and/or Firewall

In passthrough mode, the Meraki Cloud-Managed Router is transparent to the rest of the network. You should use passthrough mode if you don't want your router to provide routing functions. In this mode, the router requires one IP address.

Internet (WAN) IP address settings:

The Internet (WAN) IP address is the only setting that must be applied locally, prior to connecting to the Internet. Please follow the same instructions as in the Router Mode section above.