Z4 Installation Guide

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About this Guide

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This guide provides detailed information on how to install and configure your Z4 series device. The guide also provides recommendations and best practices for installation and configuration. For a quick start guide, please refer to the Z4 Installation Guide (PDF) for the accompanied hardware.

Product Overview

The Cisco Meraki Z4 feature enterprise grade performance and collaboration class Gigabit PoE gateway and cluster based office wireless connectivity, the gigabit ethernet ports, including 4 PoE ports, provide flexibility for connecting wired devices and other peripheral devices. Cloud based management and configuration, Meraki's Group Policy and Layer 7 application control and content filtering are included.

Features

- Managed via Cisco Meraki Dashboard
- Zero-touch provisioning capable
- 1x2 Gigabit Ethernet
- 4 port Gigabit, 802.3af
- Configurable 5 GHz, DHCP capable
- Web Blocking
- Client VPN compatible
- Manage beacons and SSIDs, offer analytics
- Cisco Meraki Insight
- Advanced Cisco Meraki Insight statistics
- Netflow support
- Syslog integration
- Remote Desktop Capture tools
- IP Discovery

Context and Comparisons

	Z4
Max Stateful Firewall Throughput (1 NAT rule)	250 Mbps
Max VPN Throughput	250 Mbps
PoE Capabilities	4x, 15.4 Watt 802.3af, 802.3at, 802.3bt
NAT	Supported (1:1 NAT)
Recommended LAN Clients	Up to 30 devices

Physical Specifications

	Z4
RJ45 WAN Interfaces	1x Gigabit (802.3af/at/bt)
LAN Interfaces - Dedicated	4x Gigabit (802.3af/at/bt)
Wireless Radio Information	WiFi 5 (802.11ac Wave1)
Antennas	(1) 2.4G/5G/802.11ac spatial diversity
Maximum Wireless Data Rate	1.2 Gbps
Mount Type	Desktop, 1RM Mount
Dimensions (W x D x H)	7.87x 4.65x 1.65 in / 200x118x42 mm
Weight	0.88 lbs / 0.39 kg
Power Supply	100-240 V / 1.0A, 4a
Power Load Max	12W
Operating Temperature	32° - 104 °F (0° - 40°C)
Storage and Transportation Temperature	-4° - 158°F (-20° - 70°C)
Humidity	5% to 95%

Refer to Meraki's Z4 data sheet for data frame rate capability of the radio chipset, and may exceed data rates allowed by IEEE 802.11ac specs.

Accessories

Accessory	Description
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Product View and Physical Features

Package Contents

In addition to the Z4 device, the following are provided:

- Z4
- Power Adapter (Per Power Cable)
- 1x Cat5e Ethernet Cables

Front Panel

Z4

Status Indicator

LED Status	Meaning
Solid orange	Power is applied but the appliance is not connected to the Meraki Dashboard
Rainbow Colors	The appliance is attempting to connect to Meraki Dashboard
Flashing White	Firmware upgrade in progress
Solid White	Fully operational/connected, uplink activity, only access WiFi

Back Panel

Z4

Additional functions on the back panel are described below, from left to right:

Reset button	Hold 5 seconds after the 5 minutes required: • Press the 'connectivity' button to disconnect/reconnect the uplink • Press and hold for more than 30 seconds to factory default
WAN1 Ethernet port	(For WAN Ethernet port PoE are powered, connecting to an IEEE)
LAN ports	These 4 ports provide connectivity to wired devices, such as computers, IP phones, printers, etc. A device plug with USB-A/Ethernet cables, and Ethernet port USB/Ethernet cables.
PoE Port	(For Z3 Only) LAN ports provide PoE. It is connected to IP cameras, phones, access points, or Ethernet switches, up to 15.4 watts per port. A device plug with USB-A/Ethernet cables, and Ethernet port USB/Ethernet cables.
Power Input	Designed for use only with the 12W power cable.

Bottom Panel

Z4

Please note the feet and rubber to be placed on the product bottom or the bottom panel of the Z4.

Mounting Hardware

The supplied wall mount and screws allow you to mount the appliance on a drywall surface, either vertically or horizontally. The distance between the holes you will require is 19.62 mm (0.772 inches).

Safety and Warnings

Please pay attention to the safety and cautions of wall mount. Please take the following into consideration for safe operation:

- Screw: Lift and surface pull-out. Read the installation instructions before connecting the system to the power source.
- Wall: Wall mounting should be considered only if the installed structure and wall are strong enough to support the mounted product for prevent injury and damage.
- Mounting: Mounting should be done by a professional installer. Please ensure that the mounted product is not exposed to moisture or to temperatures and humidity in excess of the product specifications.
- The product should not be mounted in environments that exceed the Meraki Z4 product's operating temperature of 32° - 104 °F (0° - 40°C).
- Please only use the screws and other provided hardware (cables) to ensure regulatory compliance.

Pre-Installation Preparation

Z4 should complete the following three-step before going on site to perform an installation:

Configure your Dashboard Network

Create a new network in your Meraki Dashboard organization, or add the device to an existing network. For detailed instructions about creating, configuring and managing Meraki networks, refer to the Meraki Dashboard Manual. Note: Z4 firmware versions 1.0 or higher MUST be upgraded to MX firmware 14.5 or higher.

1. Log in to https://dashboard.meraki.com. If this is your first time, create a new account.
2. Give the network a name and select the correct network type. Z4 is a wireless only network.
3. Add your Z4 to your network. You will need the Meraki order number (Q2X-XXXX-XXXX) or serial number (Qxx-xxxx-xxxx), which is found on the Meraki packing slip or on the product itself. Alternatively, you can add the device using its MAC address.
4. Bind the license. Place your order and select which Z4 to bind for licensing and assigning to the Meraki network you are assigning.

Check and Set Firmware

Z4 firmware upgrades are managed through the Meraki Dashboard. It is recommended that you facilitate a Firmware upgrade prior to mounting your Z4.

1. Attach your Z4 to power and a wired Internet connection.
2. Plug the unit out to wall power, with all ports active.
3. If the unit requires an upgrade, the power LED will begin blinking amber until the upgrade is complete, at which point the LED will turn solid white. You should allow at least 15 minutes for firmware upgrades to complete, depending on the speed of your Internet connection.

Check and Configure Upstream Firewall Settings

Z4 requires outbound access to the Meraki cloud for management and data traffic to function properly. The exact content of outbound ports and IP addresses for your network depends on the configuration of your Meraki network.

Installation Instructions

Mounting Hardware

The supplied wall screws and anchors allow you to mount the appliance on a drywall surface, either vertically or horizontally. The distance between the holes you will require is 19.62 mm (0.772 inches).

1. Pick the location of the wall mount. Ensure that the wall mount is level, plumb, and secure installation.
2. Pick the location of the wall mount. Ensure that the wall mount is level, plumb, and secure installation.
3. Mark the location of the screws and use the drilling template provided to ensure the holes are in the right place.

Connecting to WAN

Z4 Series of Meraki devices are cloud managed. This section describes how to configure and mount these wireless devices. Z4 Series of Meraki devices are cloud managed, and can be deployed, or a cloud connection of Internet, connecting to a gateway. The gateway is used for configuring and monitoring your WAN Gateway.

Setting up a Static IP Address

Z4 is the following to configure static connectivity and other relationship parameters:

1. Using a Wired Ethernet port, connect the device to the **LAN port** of the Z4.
2. Using a laptop or PC, connect to the device, the appliance's built-in web server by browsing to http://meraki.local. (This do not have to be connected to the Internet to configure the device.)
3. Click **Static** and **configuration** under the **Connection** tab. The default connection type is DHCP, and the device connecting directly to the Internet, with a Meraki generated Meraki.
4. Choose **Static** for **IP Assignment** option.
5. Enter the IP address, subnet mask, default gateway IP and DNS server information.

Setting up a DHCP IP Address

By default all devices are configured to use DHCP, which allows for easy deployment. Simply plug the WAN / Ethernet port to your upstream router and wait for the Meraki Z4 to join to Meraki's DHCP service.

Refer to the WAN connection to fully validate Internet DHCP LAN port given.

Additional Settings

Please note that Meraki configuration is available only on the web management interface.

Setting WLAN

Your **SSID** settings are in the Meraki Dashboard, under **Wireless > Access control**. Select the appropriate network, and the **SSID** to edit.

Setting PPPoE

PPPoE authentication may be required if you are connecting a DSL device or a DSL circuit. Your network may also use authentication options and credentials supplied by your ISP in order to establish Internet access.

1. Choose **Connection Type: PPPoE**.
2. Select your **Authentication** option.
3. If you select **Use authentication**, enter appropriate values for **Username** and **Password**.

Web Proxy Settings

Meraki devices can be configured to use a web proxy for traffic destined for the Cisco Meraki Cloud. By default, web proxy is disabled. To enable web proxy, do the following:

1. Choose **Web proxy: Yes**.
2. Enter proxy to be operated by **Hostname or IP** and **Port**.
3. If you require authentication, choose **Authentication: Yes** and enter appropriate values for **Username** and **Password**.

Apply all configuration settings to the appliance, by clicking the **Save Changes** at the bottom of the page.

Configuring Physical Link Settings

Configure your uplink port, and the Ethernet port, under **Wireless > Ethernet configuration**. You can enable VLAN tagging, PoE budgets, and autonegotiation, as well as set MTU, or disable the port.

Basic Troubleshooting

The following steps can be used for troubleshooting and connectivity issues with your Z4:

1. Reset the Z4.
2. Ping the Meraki Cloud by pinging the Meraki Cloud Hostnames for connectivity.
3. Troubleshoot cables, by trading your cables on another device.

Refer to http://dashboard.meraki.com/ for additional information and troubleshooting tips.

Z4 Series of Meraki devices are cloud managed, and can be deployed, or a cloud connection of Internet, connecting to a gateway. The gateway is used for configuring and monitoring your WAN Gateway.

Warranty

Z4 Series of Meraki devices are cloud managed, and can be deployed, or a cloud connection of Internet, connecting to a gateway. The gateway is used for configuring and monitoring your WAN Gateway.

Product	Warranty Period	Warranty Information
Z4	Lifetime	
Z4 Accessories	1 Year	The following are considered accessories: Power Supply, Power Cable, Ethernet Cables, Mounting Hardware, Wall Mount Plate, Desk Mounting Feet

Additional warranty information can be found in the Meraki Policy and Procedures (PDP) page of the Cisco Meraki website.

Cisco Meraki Warranty covers the product and accessories against defects in workmanship, when subject to ordinary use. Cisco's product warranties do not cover or extend to normal wear and tear, loss or damage to the product and/or a deterioration of the product due to change in nature of performance. The PDP will include a pro-rated shipping fee in the faulty equipment can be returned to Meraki.

Note: Cisco Meraki does not warrant that the operation of the product will be uninterrupted or error free. Meraki does not warrant that the product will meet any specification, product features or performance requirements.

Caution: Cisco Meraki does not warrant that the product will be free from vulnerability to intrusion and attack. In no event will Cisco Meraki be liable for any direct, indirect, special, incidental, or consequential damages related to the product, including but not limited to lost profits, business interruption, or loss of data, even if Cisco Meraki has been advised of the possibility of such damages.

Support and Additional Information

Products are encrypted and will always installed and administered by a trained, certified **Meraki Support** by logging into **dashboard.meraki.com** and pairing a copy by visiting the **Claim** page.

- The equipment is intended for installation in IBX® commercial premises.
- The equipment is suited for outdoor installation in harmful and dangerous production facility, unless otherwise specified in the operational environmental section in the installation guide.
- The equipment is to be installed, use, and maintained in compliance with the appropriate qualifications, sufficient operational knowledge, and skills.
- Racks and conditions for the equipment installation should be in compliance with the requirements for access to restricted locations and equipment.
- Disposal of a technical device at the end of its service life should be carried out in accordance with the requirements of all state legislation and laws.
- The equipment is to be installed in a restricted access location, where access can only be gained by service personnel or users who have been advised of the restrictions and precautions.
- The equipment should be secured by a single screw, or by a tool, unless specified in the installation guide. The equipment should be secured and protected against being damaged and not restricted from the movement of ventilation flow.

Z4 Series of Meraki devices are cloud managed, and can be deployed, or a cloud connection of Internet, connecting to a gateway. The gateway is used for configuring and monitoring your WAN Gateway.

For additional information on Meraki hardware and the other installation guides, please refer to **docs.meraki.com/mx-hardware**.

Previous: Z3 Next: MX Z3 Installation Guide

Was this page helpful? Yes No

Recommended articles

Z4 Hardware
Key physical properties or overview and specifications for the Meraki Z4 Enterprise gateway, including dimensions, power requirements, and mounting options.

Z4 Troubleshooting
Troubleshooting the specifications and frequency of the Meraki Z4 Enterprise gateway, including the cloud managed networking capabilities, which

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