Meraki



MX FAMILY DATASHEET

Meraki MX Cloud-Managed Security and SD-WAN

Overview

The Cisco Meraki MX is a multifunctional security and SD-WAN enterprise appliance with a wide set of capabilities to address multiple use cases—from an all-in-one device. Organizations of all sizes and across all industries rely on the MX to deliver secure connectivity to hub locations or multicloud environments, as well as application quality of experience (QoE), through advanced analytics with machine learning.

The MX is 100% cloud managed, so installation and remote management is truly zero touch, making it ideal for distributed branches, campuses, and data center locations. Natively integrated with a comprehensive suite of secure network and assurance capabilities, the MX eliminates the need for multiple appliances. These capabilities include application-based firewalling, content filtering, web search filtering, SNORT®-based intrusion detection and prevention, Cisco Advanced Malware Protection (AMP), site-to-site Auto VPN, client VPN, WAN and cellular failover, dynamic path selection, web application health, VoIP health, and more. SD-WAN can easily be extended to deliver optimized access to resources in public and private cloud environments with virtual MX (vMX) appliances. Public clouds supported with vMX include Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform, and Alibaba Cloud, and private cloud support through Cisco NFVIS.

Advanced quality of experience (QoE) analytics

- Monitor end-to-end health of web applications at-a-glance across the LAN, WAN, and application server
- Machine-learned smart application thresholds autonomously apply to identify true anomalies based on past behavioral patterns
- Monitor the health of all MX WAN links, including cellular, across your entire organization
- Get detailed hop-by-hop VoIP performance analysis across all uplinks

Agile on-premises and cloud security capabilities informed by Cisco Talos

- Next-gen layer 7 firewall for identity-based security policies and application management
- Advanced Malware Protection with sandboxing; file reputation-based protection engine powered by Cisco AMP
- Intrusion prevention: PCI-compliant IPS sensor using industry-leading SNORT® signature database from Cisco
- Granular and automatically updated category-based content filtering
- Other capabilities: SSL decryption/inspection, data loss prevention (DLP), cloud access security broker (CASB), SaaS tenant restrictions, granular app control, file type control

Branch gateway services

- Built-in DHCP, NAT, QoS, and VLAN management services
- Web caching: accelerates frequently accessed content
- Load balancing: combines multiple WAN links into a single high-speed interface, with policies for QoS, traffic shaping, and failover
- Smart connection monitoring provides automatic detection of layer 2 and layer 3 outages and fast failover, including the option of integrated LTE Advanced or 3G/4G modems

Industry-leading cloud management

- Unified firewall, switching, wireless LAN, and mobile device management through an intuitive web-based dashboard
- Template-based settings scale easily from small deployments to tens of thousands of devices
- Role-based administration, configurable email alerts for a variety of important events, and easily auditable change logs
- Summary reports with user, device, and application usage details archived in the cloud

Intelligent site-to-site VPN with Cisco SD-WAN powered by Meraki

- Auto VPN allows automatic VPN route generation using IKE/IKEv2/IPsec setup; runs on physical MX appliances and as a virtual instance in public and private clouds
- SD-WAN with active/active VPN, policy-based routing, dynamic VPN path selection, and support for application-layer performance profiles to ensure prioritization of applications types that matter
- Interoperates with all IPsec VPN devices and services
- Automated MPLS to VPN failover within seconds of a connection failure
- Layer2 TP IPsec remote client VPN included at no extra cost with support for native Windows, Mac OS X, iPad, and Android clients
- Support for Cisco AnyConnect remote client VPN (AnyConnect license required)

Inside the Meraki MX

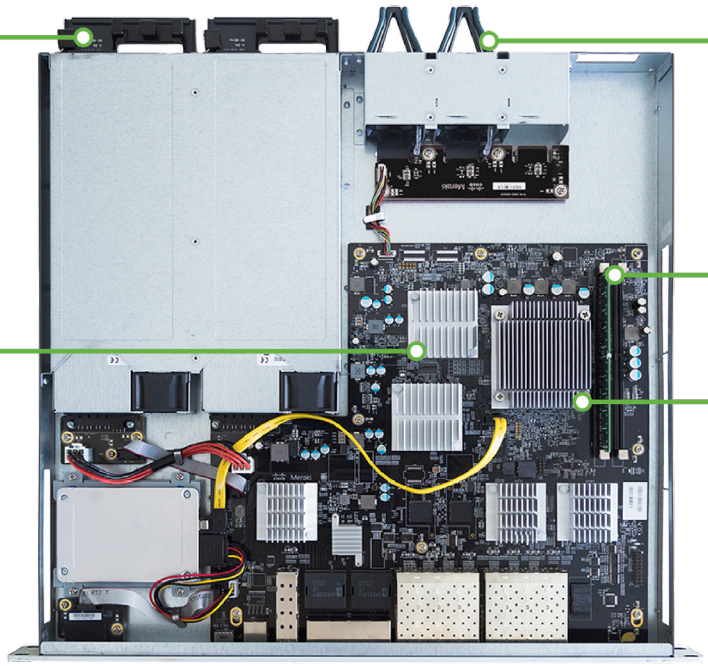
MX450 shown, features vary by model

Redundant power

Reliable, energy-efficient design with field-replaceable power supplies

Cryptographic acceleration

Reduced load with hardware crypto assist



Modular fans

High-performance front-to-back cooling with field-replaceable fans

Additional memory

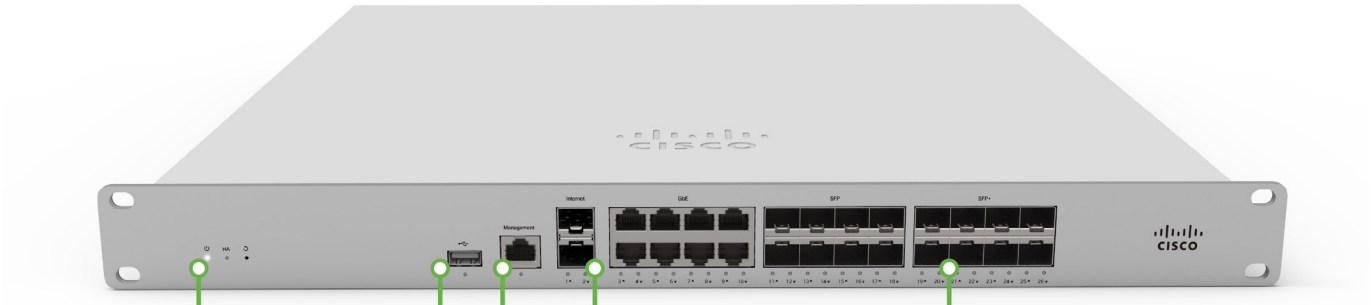
For high-performance content filtering

Enhanced CPU

Layer 3-7 firewall and traffic shaping

Front of the Cisco Meraki MX

MX450 shown, features vary by model



Multicolor status LED

Monitor device status

3G/4G modem support

Automatic cellular failover

Management interface

Local device access

Dual 10G WAN interfaces

Load balancing and SD-WAN

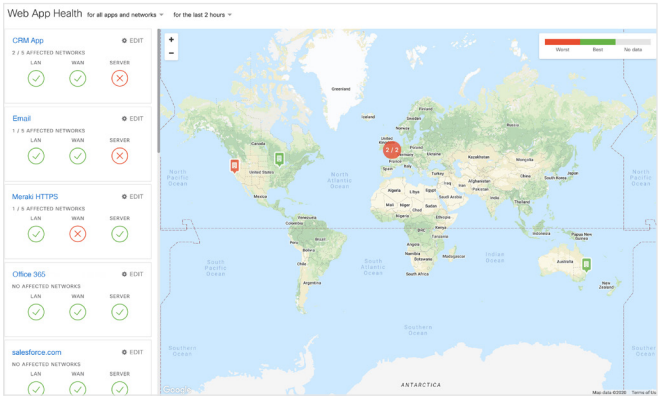
1G/10G Ethernet/SFP+ interfaces

10G SFP+ interfaces for high-speed LAN connectivity

Secure Cisco SD-WAN powered by Meraki

Secure Cisco SD-WAN powered by Meraki is delivered by MX appliances. SD-WAN powered by Meraki has helped thousands of organizations rapidly save costs by reducing their dependence on MPLS without compromising on performance. As enterprises continue to shift from hub-centric architectures interconnected with VPN to ones that leverage public internet connectivity, SD-WAN powered by Meraki delivers advanced analytics with ML to monitor and optimize quality of experience (QoE) for applications, regardless of where they might be hosted.



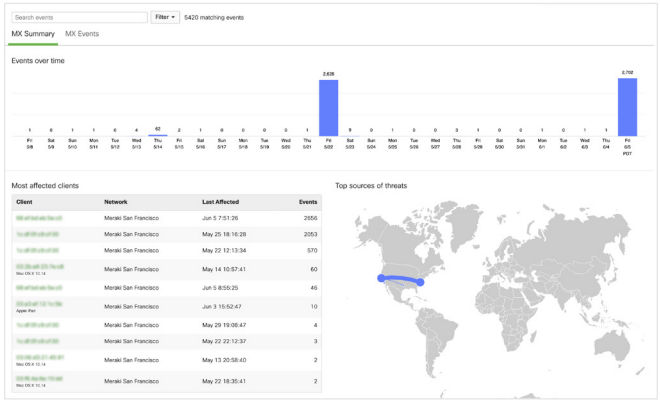


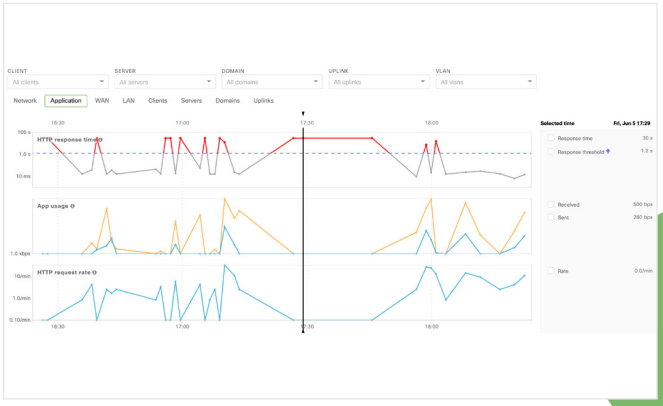
Transport independence

Leverage more than one uplink of any type with automatic failover, including MPLS, broadband, fiber, or cellular.

Advanced analytics

Coming soon: at-a-glance health of web applications with ML thresholds, VoIP, and WAN with predictive analytics.





Native security

Integrated with next-gen firewall, content filtering, Advanced Malware Protection (AMP), and IDS/IPS informed by Cisco Talos.

SaaS quality of experience

Manual and performance-based path selection using advanced analytics.

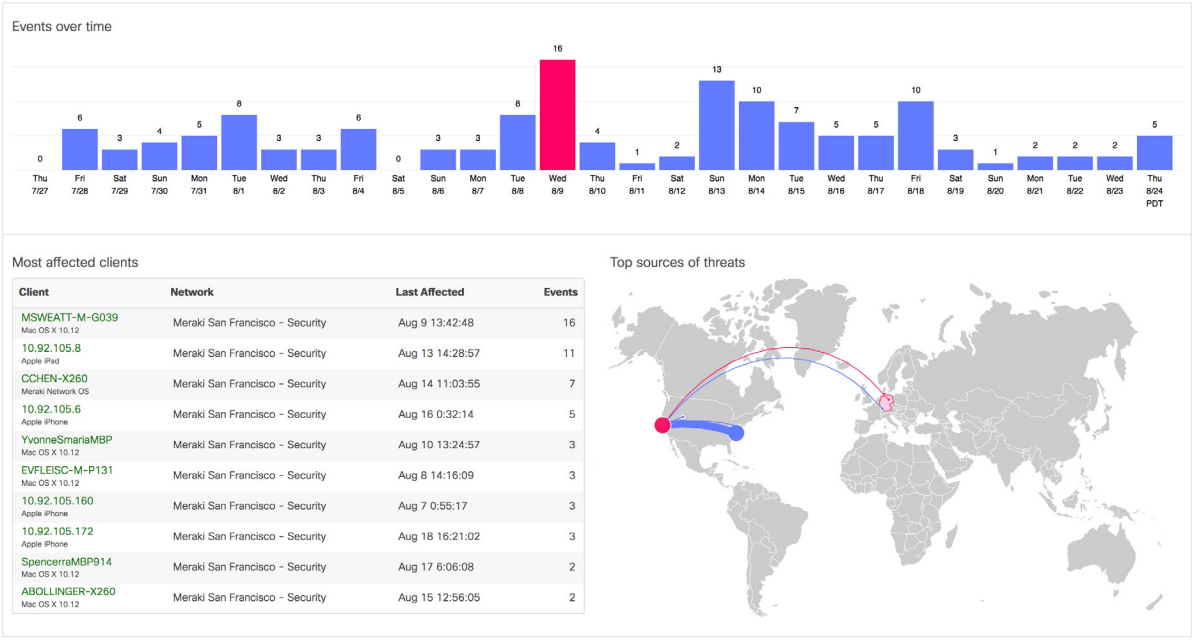
Ironclad security

The MX platform has an extensive suite of security features, including IDS/IPS, content filtering, web search filtering, anti-malware, geo-IP-based firewalling, IPsec VPN connectivity, and Cisco AMP, while providing the performance required for modern, bandwidth-intensive networks.

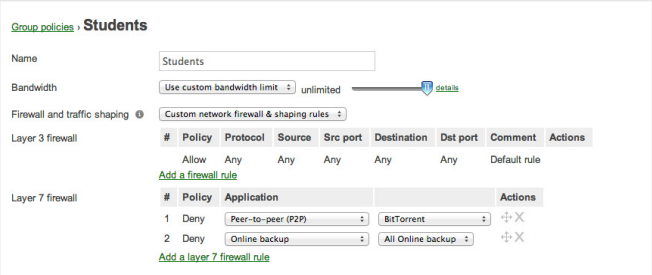
Layer 7 fingerprinting technology lets administrators identify unwanted content and applications and prevents recreational apps like BitTorrent from wasting precious bandwidth.

The integrated Cisco SNORT® engine delivers superior intrusion prevention coverage, a key requirement for PCI 3.2 compliance. The MX also uses the Webroot BrightCloud® URL categorization database for CIPA/IWF-compliant content filtering, Cisco AMP engine for anti-malware, Cisco AMP Threat Grid - Cloud, and MaxMind for geo-IP-based security rules.

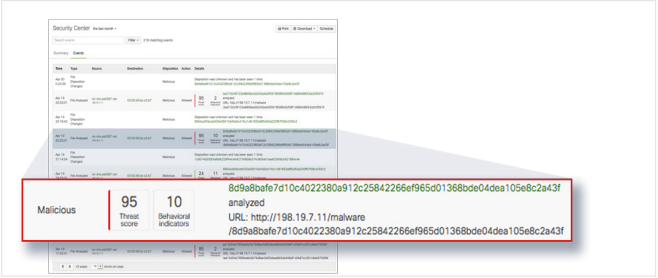
Best of all, these industry-leading layer 7 security engines and signatures are always kept up-to-date via the cloud, simplifying network security management and providing peace of mind to IT administrators.



Organization-level threat assessment with Meraki Security Center



Identity-based policy management



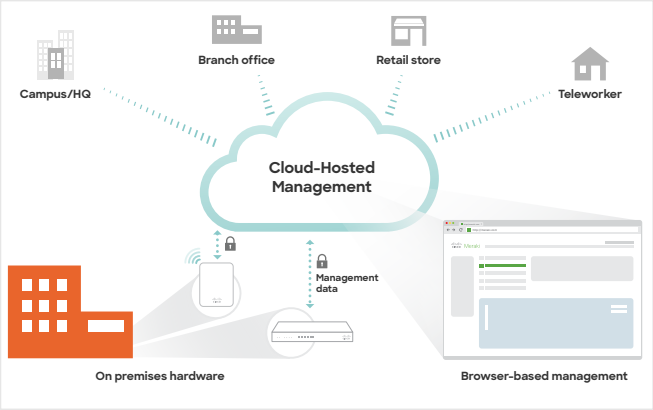
Cisco AMP Thread Grid - Cloud

Cloud-managed architecture

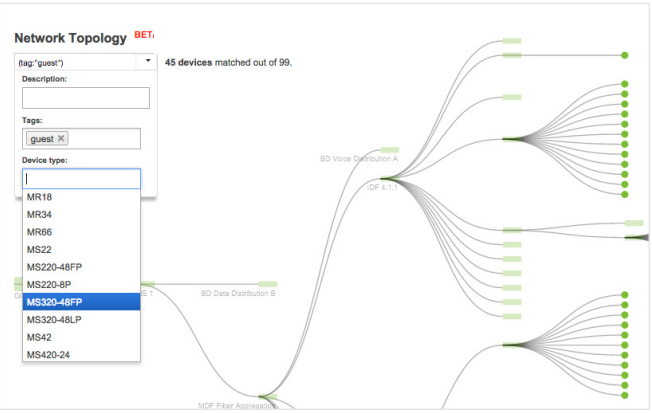
Built on the award-winning cloud architecture of Cisco Meraki, the MX is the industry's only 100% cloud-managed solution for unified threat management (UTM) and SD-WAN in a single appliance. MX appliances self-provision, automatically pulling policies and configuration settings from the cloud. Powerful remote-management tools provide network-wide visibility and control and enable administration without the need for on-site networking expertise.

Cloud services deliver seamless firmware and security signature updates, automatically establish site-to-site VPN tunnels, and provide 24×7 network monitoring. Moreover, the MX's intuitive browser-based management interface removes the need for expensive and time-consuming training.

For customers moving IT services to a public cloud service, Meraki offers a virtual MX for use in Amazon Web Services and Microsoft Azure, enabling Auto VPN peering and SD-WAN for dynamic path selection.



Cisco Meraki cloud-management architecture



End-to-end network visibility and troubleshooting

Integrated 802.11ac wave 2 wireless

The MX67W, MC68W, and MX68CW integrate award-winning wireless technology from Meraki with powerful MX network security features in a compact form factor ideal for branch offices or small enterprises.

- Dual-band 802.11n/ac wave 2, 2×2 MU-MIMO with two spatial streams
- Unified management of network security and wireless
- Integrated enterprise security and guest access



MX68CW security and SD-WAN appliance

LTE Advanced

While all MX models feature a USB port for 3G/4G failover, the MX67C and MX68CW include a SIM slot and internal LTE modem. This integrated functionality removes the need for external hardware and allows for cellular visibility and configuration within the Meraki dashboard.

- 1× Cat 6 300 Mbps LTE modem
- 1× nano SIM slot (4FF form factor)
- Global coverage with individual orderable SKUs for North America and worldwide



MX67C SIM slot

Power over Ethernet

The MX68, MX68W, and MX68CW include two ports with 802.3at (PoE+). This built-in power capability removes the need for additional hardware to power critical branch devices.

- 2× 802.3at (PoE+) ports capable of providing a total of 60 W
- APs, phones, cameras, and other PoE-enabled devices can be powered without the need for AC adapters, PoE converters, or unmanaged PoE switches



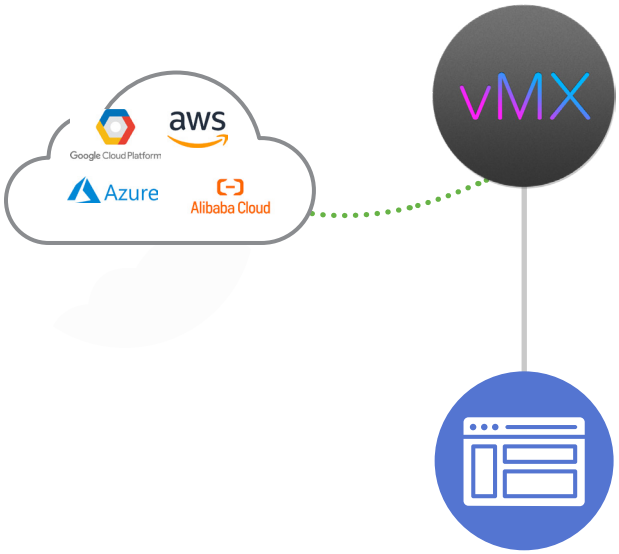
MX68 port configuration

Meraki virtual MX appliances for public and private clouds

Virtual MX (vMX) is a virtual instance of a Meraki security and SD-WAN appliance dedicated specifically to providing the simple configuration benefits of site-to-site Auto VPN for organizations running or migrating IT services to public or private cloud environments. An Auto VPN tunnel to a vMX is like having a direct Ethernet connection to a private data center.

Features and functionality of the vMX appliance:

- Securely connect branch sites with a physical MX appliance to resources in public cloud environments in three clicks with Auto VPN
- Extend SD-WAN to public cloud environments for optimized access to business-critical resources
- Only a Meraki license is required
- Available in three VPN throughput-based sizes to suit a wide range of use cases: small, medium, large



Support for private cloud environments through Cisco NFVIS vMX functions like a VPN concentrator, and includes SD-WAN functionality like other MX devices. For public cloud environments, a vMX is added via the respective public cloud marketplace and for private cloud environments, a vMX can be spun up on a Cisco UCS running NFVIS. Setup and management occurs in the Meraki dashboard, just like any other MX.

Desktop and all-in-one models

	MX67	MX67W	MX67C
			
Recommended use case	Small branch with up to 50 users		
Stateful firewall throughput	600 Mbps	600 Mbps	600 Mbps
Advanced security throughput	300 Mbps	300 Mbps	300 Mbps
Maximum site-to-site VPN throughput	300 Mbps	300 Mbps	300 Mbps
Maximum site-to-site VPN tunnels[2]	50	50	50
WAN interfaces (dedicated)	1× GbE RJ45 1× USB (cellular failover[1])	1× GbE RJ45 1× USB (cellular failover[1])	1× GbE RJ45 1× USB (cellular failover[1]) 1× integrated Cat 6 LTE cellular modem (cellular failover)
Dual-purpose	1× GbE RJ45	1× GbE RJ45	1× GbE RJ45
LAN interfaces (fixed)	4× GbE RJ45	4× GbE RJ45	4× GbE RJ45
Mounting	Desktop or wall mount	Desktop or wall mount	Desktop or wall mount
Dimensions (w x d x h)	9.4 in x 5.1 in x 1.1 in (239 mm x 130 mm x 27 mm)	9.4 in x 6.5 in x 1.1 in (239 mm x 164 mm x 27 mm)	9.4 in x 6.9 in x 1.1 in (239 mm x 176 mm x 27 mm)
Weight	1.74 lb (0.7 kg)	1.84 lb (0.83 kg)	1.87 lb (0.85 kg)
Power supply	30 W DC	30 W DC	30 W DC
Power load (idle/max)	5 W/14 W	15 W/23 W	6 W/17 W
Operating temperature	32 °F to 113 °F (0 °C to 45 °C)	32 °F to 113 °F (0 °C to 45 °C)	32 °F to 113 °F (0 °C to 45 °C)
Humidity	5% to 95%	5% to 95%	5% to 95%

[1]Requires separate cellular modem

[2]The maximum VPN tunnels are based on lab testing scenarios where no client traffic is transferring over the VPN tunnels. For information on recommended maximum site-to-site and client VPN tunnels, visit MX Sizing Principles.

Desktop and all-in-one models

	MX68	MX68W	MX68CW	MX75
				
Recommended use case	Small branch with up to 50 users			Small branch with up to 200 users
Stateful firewall throughput	600 Mbps	600 Mbps	600 Mbps	1 Gbps
Advanced security throughput	300 Mbps	300 Mbps	300 Mbps	750 Mbps
Maximum site-to-site VPN throughput	300 Mbps	300 Mbps	300 Mbps	500 Mbps
Maximum site-to-site VPN tunnels[2]	50	50	50	75
WAN interfaces (dedicated)	2× GbE RJ45 1× USB (cellular failover[1])	2× GbE RJ45 1× USB (cellular failover[1])	2× GbE RJ45 1× USB (cellular failover[1]) 1× integrated Cat 6 LTE cellular modem (cellular failover)	1× GbE SFP 2× GbE RJ45 (cellular failover[1])
Dual-purpose	-	-	-	-
LAN interfaces (fixed)	10× GbE RJ45 (2× PoE+)	10× GbE RJ45 (2× PoE+)	10× GbE RJ45 (2× PoE+)	10× GbE RJ45 (2× PoE)
Mounting	Desktop or wall mount	Desktop or wall mount	Desktop or wall mount	Desktop or wall mount
Dimensions (w x d x h)	11.2 in x 5.8 in x 1.1 in (284 mm x 148 mm x 27 mm)	11.2 in x 6.8 in x 1.1 in (284 mm x 172 mm x 27 mm)	11.2 in x 7 in x 1.1 in (284 mm x 178 mm x 27 mm)	11.14 in x 5.83 in x 1.06 in (283 mm x 148 mm x 27 mm)
Weight	2.46 lb (1.12 kg)	2.55 lb (1.16 kg)	2.61 lb (1.18 kg)	1.87 lb (0.85 kg)
Power supply	100 W DC	100 W DC	100 W DC	100 W DC
Power load (idle/max)	11 W/79 W	19 W/87 W	19 W/89 W	12 W/96 W
Operating temperature	32 °F to 113 °F (0 °C to 45 °C)	32 °F to 113 °F (0 °C to 45 °C)	32 °F to 113 °F (0 °C to 45 °C)	32 °F to 113 °F (0 °C to 45 °C)
Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%

[1]Requires separate cellular modem

[2]The maximum VPN tunnels are based on lab testing scenarios where no client traffic is transferring over the VPN tunnels. For information on recommended maximum site-to-site and client VPN tunnels, visit MX Sizing Principles.

Rack mount models

	MX85	MX95
		
Recommended use case	Small to medium branch with up to 250 users	Medium to large branch with up to 500 users
Stateful firewall throughput	1 Gbps	2 Gbps
Advanced security throughput	700 Mbps	2 Gbps
Maximum site-to-site VPN throughput	500 Mbps	800 Mbps
Maximum site-to-site VPN tunnels[2]	200	500
WAN interfaces (dedicated)	2× GbE SFP 2× GbE RJ45 (1x PoE+)	2× 10 GbE SFP+ 2× 2.5 GbE RJ45 (1x PoE+) 1x USB (cellular failover[1])
Dual-purpose	1× USB (cellular failover[1])	-
LAN interfaces (fixed)	8× GbE RJ45 2x GbE SFP	4× GbE RJ45 2× 10 GbE SFP+
Mounting	1U rack	1U rack
Dimensions (w x d x h)	19 in x 9.8 in x 1.7 in (484.6 mm x 250 mm x 43.8 mm)	19.08 in x 11.23 in x 1.73 in (484.6 mm x 285.2 mm x 44 mm)
Weight	8.2 lb (3.7 kg)	6.99 lbs (3.17 kg)
Power supply	Internal 100-127 V 200-240 V (50/60 Hz)	Internal 100-127 V 200-240 V (50/60 Hz)
Power load (idle/max)	12 W/55 W	42 W/109 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)	32 °F to 104 °F (0 °C to 40 °C)
Humidity	5% to 95%	5% to 95%

[1]Requires separate cellular modem

[2]The maximum VPN tunnels are based on lab testing scenarios where no client traffic is transferring over the VPN tunnels. For information on recommended maximum site-to-site and client VPN tunnels, visit MX Sizing Principles.

Rack mount models

	MX105	MX250	MX450
			
Recommended use case	Large branch with up to 750 users	Campus or VPN concentrator with up to 2,000 users	Campus or VPN concentrator with up to 10,000 users
Stateful firewall throughput	3 Gbps	4 Gbps	5 Gbps
Advanced security throughput	1.5 Gbps	2.5 Gbps	2.5 Gbps
Maximum site-to-site VPN throughput	1 Gbps	1 Gbps	2 Gbps
Maximum site-to-site VPN tunnels[2]	1,000	3,000	5,000
WAN interfaces (dedicated)	2× 10GbE SFP+ 2× 2.5GbE RJ45 1x PoE+ 1× USB (cellular failover[1])	2× 10 GbE SFP+ 1× USB (cellular failover[1])	2× 10 GbE SFP+ 1× USB (cellular failover[1])
Dual-purpose	-	-	-
LAN interfaces (fixed)	4× GbE RJ45 2× 10 GbE SFP+	8× GbE RJ45 8× GbE SFP 8× 10 GbE SFP+	8× GbE RJ45 8× GbE SFP 8× 10 GbE SFP+
Mounting	1U rack	1U rack	1U rack
Dimensions (w x d x h)	19.08 in x 12.4 in x 1.73 in (484.6 mm x 315 mm x 44 mm)	19 in x 17.3 in x 1.75 in (483 mm x 440 mm x 44 mm)	19 in x 17.3 in x 1.75 in (483 mm x 440 mm x 44 mm)
Weight	10.74 lbs (4.87 kg) (with two fans and two PSUs)	16 lb (7.3 kg)	16 lb (7.3 kg)
Power supply	Modular 100-127 V 200-240 V (50/60 Hz) 2× 150 W PSU	Modular 100-220 V 50/60 Hz 2× 250 W PSU	Modular 100-220 V 50/60 Hz 2× 250 W PSU
Power load (idle/max)	53 W/123 W	105 W/190 W	105 W/190 W
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)	32 °F to 104 °F (0 °C to 40 °C)	32 °F to 104 °F (0 °C to 40 °C)
Humidity	5% to 95%	5% to 95%	5% to 95%

[1]Requires separate cellular modem

[2]The maximum VPN tunnels are based on lab testing scenarios where no client traffic is transferring over the VPN tunnels. For information on recommended maximum site-to-site and client VPN tunnels, visit MX Sizing Principles.

Virtual appliance models

Meraki switches include all of the traditional Ethernet features found in modern enterprise access switches, including:

	vMX - Small	vMX - Medium	vMX - Large
			
Recommended use cases	Extend secure SD-WAN connectivity from branch sites to resources in public and private cloud environments		
Interfaces	Virtual	Virtual	Virtual
Supported cloud platforms	AWS Azure Google Cloud Platform[1] Alibaba Cloud Cisco NFVIS	AWS Azure Google Cloud Platform[1] Alibaba Cloud Cisco NFVIS	AWS Google Cloud Platform[1] Alibaba Cloud Cisco NFVIS
Maximum site-to-site VPN throughput	270 Mbps	500 Mbps	1 Gbps
Maximum concurrent site-to-site VPN tunnels	50	250	1,000
Client VPN support	Yes	Yes	Yes

[1]Targeted 2HCY 2021

Included in the box

Package contents	Model(s)
Mounting kit	MX67, MX67W, MX67C, MX68, MX68W, MX68CW, MX250, MX450
Cat 5 Ethernet cable (2)	MX67, MX67W, MX67C, MX68, MX68W, MX68CW
AC power adapter	MX67, MX67W, MX67C, MX68, MX68W, MX68CW, MX75
Wireless external omni antenna (2)	MX67W, MX68W
150W power supply (2)	MX105
250W power supply (2)	MX250, MX450
System fan (2)	MX105, MX250, MX450
SIM card ejector tool	MX67C, MX68CW
Fixed external wireless and LTE paddle antennas	MX68CW
Removable external LTE paddle antennas	MX67C

Lifetime warranty with next-day advanced replacement

Meraki MX appliances include a limited lifetime hardware warranty that provides next-day advance hardware replacement. The Meraki simplified software and support licensing model also combines software upgrades, centralized systems management, and phone support under a single, easy-to-understand model.

For complete details, please visit meraki.cisco.com/support.

Licensing

There are three license tiers for MX appliances to provide you the flexibility to select the one most appropriate for your intended use. Pair your chosen MX appliance(s) with the relevant license for your use case.

FEATURE HIGHLIGHTS	SD-WAN plus Sites with critical SaaS usage	Advanced security Sites with critical SaaS usage	Enterprise Fully backhauled environment
Three-click secure SD-WAN connectivity	●	●	●
Layer 7 stateful firewall	●	●	●
Advanced malware protection (AMP)	●	●	✖
Intrusion detection and prevention	●	●	✖
Content filtering	●	●	✖
Internet outtages from ThousandEyes	●	✖	✖
Internet intelligence from ThousandEyes	●	○	✖
Smart layer 7 local internet breakout	●	✖	✖
Performance-based internet routing	●	✖	✖
ML-powered SD-WAN analytics	●	✖	✖
Mixed-license environment	●	●	✖

A full list of features by license type is available here.

Mixed-license environments

The SD-WAN Plus and Advanced Security licenses can be selected on a per-device basis for a mixed-license deployment. In this way, some sites could have MXs with full SD-WAN Plus license functionality and remaining sites with Advanced Security license features. Enterprise licenses can only be applied organization-wide.

Accessories

The Meraki MX250 and MX450 models support pluggable optics for high-speed backbone connections between wiring closets or to aggregation switches. Meraki offers several standards-based Gigabit and 10 Gigabit pluggable modules. Each appliance has also been tested for compatibility with several third-party modules.





Accessories/SFP transceivers

Supported Cisco Meraki accessory modules

Model	Description
MA-SFP-1GB-SX	Cisco Meraki 1 GbE SFP SX Fiber Module (1000BASE-SX, range: 550 m) for MX75, MX85, MX95, MX105, MX250, MX450
MA-SFP-1GB-TX	Cisco Meraki 1 GbE RJ45 Copper Module (1000BASE-T for twisted pair) for MX75, MX85, MX95, MX105, MX250, MX450
MA-SFP-10GB-SR	Cisco Meraki 10 GbE Twinax Cable with SFP+ Connectors (10GSFP+Cu, range: 1 m) for MX95, MX105, MX250, MX450
MA-CBL-TA-1M	Cisco Meraki 10 GbE Twinax Cable with SFP+ Connectors (10GSFP+Cu, range: 3 m) for MX95, MX105, MX250, MX450
MA-CBL-TA-3M	Cisco Meraki 10 GbE Twinax Cable with SFP+ Connectors (10GSFP+Cu, range: 3m) for MX95, MX105, MX250, MX450
MA-PWR-30WAC	Replacement Power Adapter (30W) for MX67, MX67W, MX67C
MA-PWR-100WAC	Replacement Power Adapter (100W) for MX68, MX68W, MX68CW
MA-PWR-100WAC-A	Replacement Power Adapter (100W) for MX75
MA-PWR-150WAC	Meraki MX105 Power Supply Unit (PSU)
MA-PWR-250WAC	Meraki MX250/MX450 Power Supply Unit (PSU)
MA-FAN-18K	Meraki 18K RPM System Fan for MX105, MX250 and MX450
MA-ANT-MX	One pair of external dual-band dipole antennas (connector type: RP-SMA) for MX67W, or MX68W

Power cables

1x power cable required for each MX; 2x power cables required for MX105, MX250 and MX450. For U.S. customers, all required power cables will be automatically included. Customers outside the U.S. are required to order power cords separately.

SKU

MA-PWR-CORD-US
MA-PWR-CORD-EU
MA-PWR-CORD-EU
MA-PWR-CORD-AU



MX specifications

Management

- Managed via the web using the Cisco Meraki dashboard
- Single dashboard management of wired and wireless networks
- Zero-touch remote deployment (no staging needed)
- Automatic firmware upgrades and security patches
- Template-based multi-network management
- Org-level two-factor authentication and single sign-on
- Role-based administration with change logging and alerts

Monitoring and reporting

- Throughput, connectivity monitoring, and email alerts
- Detailed historical per-port and per-client usage statistics
- Application usage statistics
- Org-level change logs for compliance and change management
- VPN tunnel and latency monitoring
- Network asset discovery and user identification
- Periodic emails with key utilization metrics
- Device performance and utilization reporting
- Netflow support
- Syslog integration

Management

- Live remote packet capture
- Real-time diagnostic and troubleshooting tools
- Aggregated event logs with instant search

Network and firewall services

- Stateful firewall, 1:1 NAT, DMZ
- Identity-based policies
- Auto VPN: automated site-to-site (IPsec) VPN for hub-and-spoke or mesh topologies
- Client (IPsec L2TP) VPN
- Multiple WAN IP, PPPoE, NAT
- VLAN support and DHCP services
- Static routing
- User and device quarantine

WAN performance management

- WAN link aggregation
- Automatic layer 3 failover (including VPN connections)
- 3G/4G USB modem failover or single uplink
- Application-level (layer 7) traffic analysis and shaping
- Ability to choose WAN uplink based on traffic type
- SD-WAN: dual-active VPN with policy-based routing and dynamic path selection
- Cat 6 LTE modem for failover or single uplink[1]

[1] MX67C and MX68CW only

MX specifications

Advanced security services[1]

Content filtering (Webroot BrightCloud CIPA-compliant URL database)
Web-search filtering (including Google/Bing SafeSearch)
YouTube for Schools
Intrusion-prevention sensor (Cisco SNORT®-based)
Cisco Advanced Malware Protection (AMP)
AMP Threat Grid[2]

[1] Advanced security services require Advanced Security license
[2] Threat Grid services require additional sample pack licensing

Integrated wireless (MX67W, MX68W, MX68CW)

1× 802.11a/n/ac (5 GHz) radio
1× 802.11b/g/n (2.4 GHz) radio
Max data rate 1.3 Gbps aggregate (MX67W, MX68W, MX68CW)
2× 2 MU-MIMO with two spatial streams (MX67W, MX68W, MX68CW)
2× external dual-band dipole antennas (connector type: RP-SMA)
Antenna gain: 3.0 dBi @ 2.4 GHz, 3.5 dBi @ 5 GHz
WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X authentication
FCC (U.S.): 2.412-2.462 GHz, 5.150-5.250 GHz (UNII-1), 5.250-5.350 GHz (UNII-2), 5.470-5.725 GHz (UNII-2e), 5.725 -5.825 GHz (UNII-3)
CE (Europe): 2.412-2.484 GHz, 5.150-5.250 GHz (UNII-1), 5.250-5.350 GHz (UNII-2) 5.470-5.600 GHz, 5.660-5.725 GHz (UNII-2e)
Additional regulatory information: IC (Canada), C-Tick (Australia/New Zealand), RoHS

Integrated cellular (MX67C and MX68CW only)

LTE bands: 2, 4, 5, 12, 13, 17, and 19 (North America). 1, 3, 5, 7, 8, 20, 26, 28A, 28B, 34, 38, 39, 40, and 41 (worldwide).
300 Mbps Cat 6 LTE
Additional regulatory information: PTCRB (North America), RCM (ANZ, APAC), GCF (EU)

Power over Ethernet (MX68, MX68W, MX68CW)

2× PoE+ (802.3at) LAN ports
30 W maximum per port

Regulatory

FCC (U.S.)
CB (IEC)
CISPR (Australia/New Zealand)
PTCRB (North America)
RCM (Australia/New Zealand, Asia Pacific)
GCF (EU)

Warranty

Full lifetime hardware warranty with next-day advanced replacement included.

Hardware and license SKU list

Model	License	Description
MX67-HW	LIC-MX67-ENT-1Y LIC-MX67-ENT-3Y LIC-MX67-ENT-5Y LIC-MX67-ENT-7Y	Cisco Meraki MX67, 1-year Enterprise License and Support Cisco Meraki MX67, 3-year Enterprise License and Support Cisco Meraki MX67, 5-year Enterprise License and Support Cisco Meraki MX67, 7-year Enterprise License and Support
	LIC-MX67-SEC-1Y LIC-MX67-SEC-3Y LIC-MX67-SEC-5Y LIC-MX67-SEC-7Y	Cisco Meraki MX67, 1-year Advanced Security License and Support Cisco Meraki MX67, 3-year Advanced Security License and Support Cisco Meraki MX67, 5-year Advanced Security License and Support Cisco Meraki MX67, 7-year Advanced Security License and Support
	LIC-MX67-SDW-1Y LIC-MX67-SDW-3Y LIC-MX67-SDW-5Y LIC-MX67-SDW-7Y	Cisco Meraki MX67, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX67, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX67, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX67, 7-year Secure SD-WAN Plus License and Support
MX67W-HW	LIC-MX67W-ENT-1Y LIC-MX67W-ENT-3Y LIC-MX67W-ENT-5Y LIC-MX67W-ENT-7Y	Cisco Meraki MX67W, 1-year Enterprise License and Support Cisco Meraki MX67W, 3-year Enterprise License and Support Cisco Meraki MX67W, 5-year Enterprise License and Support Cisco Meraki MX67W, 7-year Enterprise License and Support
	LIC-MX67W-SEC-1Y LIC-MX67W-SEC-3Y LIC-MX67W-SEC-5Y LIC-MX67W-SEC-7Y	Cisco Meraki MX67W, 1-year Advanced Security License and Support Cisco Meraki MX67W, 3-year Advanced Security License and Support Cisco Meraki MX67W, 5-year Advanced Security License and Support Cisco Meraki MX67W, 7-year Advanced Security License and Support
	LIC-MX67W-SDW-1Y LIC-MX67W-SDW-3Y LIC-MX67W-SDW-5Y LIC-MX67W-SDW-7Y	Cisco Meraki MX67W, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX67W, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX67W, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX67W, 7-year Secure SD-WAN Plus License and Support
MX67C-HW-NA (North America) MX67C-HW-WW (worldwide)	LIC-MX67C-ENT-1Y LIC-MX67C-ENT-3Y LIC-MX67C-ENT-5Y LIC-MX67C-ENT-7Y	Cisco Meraki MX67C, 1-year Enterprise License and Support Cisco Meraki MX67C, 3-year Enterprise License and Support Cisco Meraki MX67C, 5-year Enterprise License and Support Cisco Meraki MX67C, 7-year Enterprise License and Support
	LIC-MX67C-SEC-1Y LIC-MX67C-SEC-3Y LIC-MX67C-SEC-5Y LIC-MX67C-SEC-7Y	Cisco Meraki MX67C, 1-year Advanced Security License and Support Cisco Meraki MX67C, 3-year Advanced Security License and Support Cisco Meraki MX67C, 5-year Advanced Security License and Support Cisco Meraki MX67C, 7-year Advanced Security License and Support
	LIC-MX67C-SDW-1Y LIC-MX67C-SDW-3Y LIC-MX67C-SDW-5Y LIC-MX67C-SDW-7Y	Cisco Meraki MX67C, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX67C, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX67C, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX67C, 7-year Secure SD-WAN Plus License and Support

Hardware and license SKU list

Model	License	Description
MX68-HW	LIC-MX68-ENT-1Y LIC-MX68-ENT-3Y LIC-MX68-ENT-5Y LIC-MX68-ENT-7Y	Cisco Meraki MX68, 1-year Enterprise License and Support Cisco Meraki MX68, 3-year Enterprise License and Support Cisco Meraki MX68, 5-year Enterprise License and Support Cisco Meraki MX68, 7-year Enterprise License and Support
	LIC-MX68-SEC-1Y LIC-MX68-SEC-3Y LIC-MX68-SEC-5Y LIC-MX68-SEC-7Y	Cisco Meraki MX68, 1-year Advanced Security License and Support Cisco Meraki MX68, 3-year Advanced Security License and Support Cisco Meraki MX68, 5-year Advanced Security License and Support Cisco Meraki MX68, 7-year Advanced Security License and Support
	LIC-MX68-SDW-1Y LIC-MX68-SDW-3Y LIC-MX68-SDW-5Y LIC-MX68-SDW-7Y	Cisco Meraki MX68, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX68, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX68, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX68, 7-year Secure SD-WAN Plus License and Support
MX68W-HW	LIC-MX68W-ENT-1Y LIC-MX68W-ENT-3Y LIC-MX68W-ENT-5Y LIC-MX68W-ENT-7Y	Cisco Meraki MX68W, 1-year Enterprise License and Support Cisco Meraki MX68W, 3-year Enterprise License and Support Cisco Meraki MX68W, 5-year Enterprise License and Support Cisco Meraki MX68W, 7-year Enterprise License and Support
	LIC-MX68W-SEC-1Y LIC-MX68W-SEC-3Y LIC-MX68W-SEC-5Y LIC-MX68W-SEC-7Y	Cisco Meraki MX68W, 1-year Advanced Security License and Support Cisco Meraki MX68W, 3-year Advanced Security License and Support Cisco Meraki MX68W, 5-year Advanced Security License and Support Cisco Meraki MX68W, 7-year Advanced Security License and Support
	LIC-MX68W-SDW-1Y LIC-MX68W-SDW-3Y LIC-MX68W-SDW-5Y LIC-MX68W-SDW-7Y	Cisco Meraki MX68W, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX68W, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX68W, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX68W, 7-year Secure SD-WAN Plus License and Support
MX68CW-HW-NA (North America) MX68CW-HW-WW (worldwide)	LIC-MX68CW-ENT-1Y LIC-MX68CW-ENT-3Y LIC-MX68CW-ENT-5Y LIC-MX68CW-ENT-7Y	Cisco Meraki MX68CW, 1-year Enterprise License and Support Cisco Meraki MX68CW, 3-year Enterprise License and Support Cisco Meraki MX68CW, 5-year Enterprise License and Support Cisco Meraki MX68CW, 7-year Enterprise License and Support
	LIC-MX68CW-SEC-1Y LIC-MX68CW-SEC-3Y LIC-MX68CW-SEC-5Y LIC-MX68CW-SEC-7Y	Cisco Meraki MX68CW, 1-year Advanced Security License and Support Cisco Meraki MX68CW, 3-year Advanced Security License and Support Cisco Meraki MX68CW, 5-year Advanced Security License and Support Cisco Meraki MX68CW, 7-year Advanced Security License and Support
	LIC-MX68CW-SDW-1Y LIC-MX68CW-SDW-3Y LIC-MX68CW-SDW-5Y LIC-MX68CW-SDW-7Y	Cisco Meraki MX68CW, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX68CW, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX68CW, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX68CW, 7-year Secure SD-WAN Plus License and Support

Hardware and license SKU list

Model	License	Description
MX75-HW	LIC-MX75-ENT-1Y LIC-MX75-ENT-3Y LIC-MX75-ENT-5Y	Cisco Meraki MX75, 1 year Enterprise License and Support Cisco Meraki MX75, 3 year Enterprise License and Support Cisco Meraki MX75, 5 year Enterprise License and Support
	LIC-MX75-SEC-1Y LIC-MX75-SEC-3Y LIC-MX75-SEC-5Y	Cisco Meraki MX75, 1 year Advanced Security License and Support Cisco Meraki MX75, 3 year Advanced Security License and Support Cisco Meraki MX75, 5 year Advanced Security License and Support
	LIC-MX75-SDW-1Y LIC-MX75-SDW-3Y LIC-MX75-SDW-5Y	Cisco Meraki MX75, 1 year Secure SD-WAN Plus License and Support Cisco Meraki MX75, 3 year Secure SD-WAN Plus License and Support Cisco Meraki MX75, 5 year Secure SD-WAN Plus License and Support
MX85-HW	LIC-MX85-ENT-1Y LIC-MX85-ENT-3Y LIC-MX85-ENT-5Y	Cisco Meraki MX85, 1 year Enterprise License and Support Cisco Meraki MX85, 3 year Enterprise License and Support Cisco Meraki MX85, 5 year Enterprise License and Support
	LIC-MX85-SEC-1Y LIC-MX85-SEC-3Y LIC-MX85-SEC-5Y	Cisco Meraki MX85, 1 year Advanced Security License and Support Cisco Meraki MX85, 3 year Advanced Security License and Support Cisco Meraki MX85, 5 year Advanced Security License and Support
	LIC-MX85-SDW-1Y LIC-MX85-SDW-3Y LIC-MX85-SDW-5Y	Cisco Meraki MX85, 1 year Secure SD-WAN Plus License and Support Cisco Meraki MX85, 3 year Secure SD-WAN Plus License and Support Cisco Meraki MX85, 5 year Secure SD-WAN Plus License and Support
MX95-HW	LIC-MX95-ENT-1Y LIC-MX95-ENT-3Y LIC-MX95-ENT-5Y	Cisco Meraki MX95, 1 year Enterprise License and Support Cisco Meraki MX95, 3 year Enterprise License and Support Cisco Meraki MX95, 5 year Enterprise License and Support
	LIC-MX95-SEC-1Y LIC-MX95-SEC-3Y LIC-MX95-SEC-5Y	Cisco Meraki MX95, 1 year Advanced Security License and Support Cisco Meraki MX95, 3 year Advanced Security License and Support Cisco Meraki MX95, 5 year Advanced Security License and Support
	LIC-MX95-SDW-1Y LIC-MX95-SDW-3Y LIC-MX95-SDW-5Y	Cisco Meraki MX95, 1 year Secure SD-WAN Plus License and Support Cisco Meraki MX95, 3 year Secure SD-WAN Plus License and Support Cisco Meraki MX95, 5 year Secure SD-WAN Plus License and Support
MX105-HW	LIC-MX105-ENT-1Y LIC-MX105-ENT-3Y LIC-MX105-ENT-5Y	Cisco Meraki MX105, 1 year Enterprise License and Support Cisco Meraki MX105, 3 year Enterprise License and Support Cisco Meraki MX105, 5 year Enterprise License and Support
	LIC-MX105-SEC-1Y LIC-MX105-SEC-3Y LIC-MX105-SEC-5Y	Cisco Meraki MX105, 1 year Advanced Security License and Support Cisco Meraki MX105, 3 year Advanced Security License and Support Cisco Meraki MX105, 5 year Advanced Security License and Support
	LIC-MX105-SDW-1Y LIC-MX105-SDW-3Y LIC-MX105-SDW-5Y	Cisco Meraki MX105, 1 year Secure SD-WAN Plus License and Support Cisco Meraki MX105, 3 year Secure SD-WAN Plus License and Support Cisco Meraki MX105, 5 year Secure SD-WAN Plus License and Support

Hardware and license SKU list

Model	License	Description
MX250-HW	LIC-MX250-ENT-1Y LIC-MX250-ENT-3Y LIC-MX250-ENT-5Y LIC-MX250-ENT-7Y	Cisco Meraki MX250, 1-year Enterprise License and Support Cisco Meraki MX250, 3-year Enterprise License and Support Cisco Meraki MX250, 5-year Enterprise License and Support Cisco Meraki MX250, 7-year Enterprise License and Support
	LIC-MX250-SEC-1Y LIC-MX250-SEC-3Y LIC-MX250-SEC-5Y LIC-MX250-SEC-7Y	Cisco Meraki MX250, 1-year Advanced Security License and Support Cisco Meraki MX250, 3-year Advanced Security License and Support Cisco Meraki MX250, 5-year Advanced Security License and Support Cisco Meraki MX250, 7-year Advanced Security License and Support
	LIC-MX250-SDW-1Y LIC-MX250-SDW-3Y LIC-MX250-SDW-5Y LIC-MX250-SDW-7Y	Cisco Meraki MX250, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX250, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX250, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX250, 7-year Secure SD-WAN Plus License and Support
MX450-HW	LIC-MX450-ENT-1Y LIC-MX450-ENT-3Y LIC-MX450-ENT-5Y LIC-MX450-ENT-7Y	Cisco Meraki MX450, 1-year Enterprise License and Support Cisco Meraki MX450, 3-year Enterprise License and Support Cisco Meraki MX450, 5-year Enterprise License and Support Cisco Meraki MX450, 7-year Enterprise License and Support
	LIC-MX450-SEC-1Y LIC-MX450-SEC-3Y LIC-MX450-SEC-5Y LIC-MX450-SEC-7Y	Cisco Meraki MX450, 1-year Advanced Security License and Support Cisco Meraki MX450, 3-year Advanced Security License and Support Cisco Meraki MX450, 5-year Advanced Security License and Support Cisco Meraki MX450, 7-year Advanced Security License and Support
	LIC-MX450-SDW-1Y LIC-MX450-SDW-3Y LIC-MX450-SDW-5Y LIC-MX450-SDW-7Y	Cisco Meraki MX450, 1-year Secure SD-WAN Plus License and Support Cisco Meraki MX450, 3-year Secure SD-WAN Plus License and Support Cisco Meraki MX450, 5-year Secure SD-WAN Plus License and Support Cisco Meraki MX450, 7-year Secure SD-WAN Plus License and Support
vMX	LIC-VMX-S-ENT-1Y LIC-VMX-S-ENT-3Y LIC-VMX-S-ENT-5Y	Cisco Meraki Small vMX, 1-year License and Support Cisco Meraki Small vMX, 3-year License and Support Cisco Meraki Small vMX, 5-year License and Support
	LIC-VMX-M-ENT-1Y LIC-VMX-M-ENT-3Y LIC-VMX-M-ENT-5Y	Cisco Meraki Medium vMX, 1-year License and Support Cisco Meraki Medium vMX, 3-year License and Support Cisco Meraki Medium vMX, 5-year License and Support
	LIC-VMX-L-ENT-1Y LIC-VMX-L-ENT-3Y LIC-VMX-L-ENT-5Y	Cisco Meraki Large vMX, 1-year License and Support Cisco Meraki Large vMX, 3-year License and Support Cisco Meraki Large vMX, 5-year License and Support

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