



## FAMILY DATASHEET

# vMX – Security and SD-WAN in the Cloud

## Overview

In order to meet the growing demands of an ever-evolving world, businesses run critical infrastructure services across a variety of mediums. This is known as distributed computing. Over time, distributed computing has grown more complex and has created new gaps. Distributed computing is now multimodal<sup>1</sup>, disaggregated<sup>2</sup>, and regionally dispersed, creating challenges for businesses in the form of slow, non-secure data transmission due to a lack of a common network fabric. This raises the cost of doing business, leaves managing these services more prone to human error, and makes managing IT much more difficult.

<sup>1</sup>multimodal services span physical and virtual platforms (privately owned data centers and public cloud hyperscalers)

<sup>2</sup>disaggregated services include applications, storage, and virtualized computers

## vMX: unifying on-premises and virtual services

Meraki vMX is a virtual security and SD-WAN cloud networking solution that creates a fast, secure, and persistent connection between networks across different physical and virtual mediums, different cloud hyperscalers, and different public cloud regions. Part of the cloud-native Meraki platform, this seamless and centralized interconnectivity on a common Meraki-based network enables high-speed, always-on secure network connectivity for business-critical operations across all distributed services. Networking teams use vMX to connect branch, campus, public cloud, and private cloud data networks in the simplest manner. Part of a modern SD-WAN architecture requiring strong security and reliable performance, vMX builds upon the simplicity, performance, and security of Auto VPN connectivity from the MX security and SD-WAN appliance to secure users and infrastructure while maintaining optimal network performance everywhere.

## Quick and easy to deploy

Onboard multimodal, distributed services onto a single SD-WAN fabric in minutes with Cisco Meraki vMX. Ensure your networks are securely connected in order to easily transfer data across thousands of sites, workloads, and users at once.

## Centrally manage at scale

vMX is a 100% cloud-delivered product integrated with the Meraki platform. This means that managing, architecting, and scaling organizations' networks across physical data centers and virtual private clouds can be done remotely, making the vMX ideal for unifying distributed services across branches, campuses, data center locations, and public cloud regions. Easily add the vMX to your existing Meraki SD-WAN with ease. Deploy, provision, view, and manage all of your Meraki devices in a single platform view.

## Super-fast security and SD-WAN in the cloud

With a single SD-WAN fabric to stitch together all of your distributed services, businesses can rely on the vMX family of products for a consistent experience 24/7/365 to ensure secure business uptime and network resilience. The vMX allows businesses to confidently extend SD-WAN to networks no matter where they are.

## The best way to connect to physical and virtual services

A network is only as good as its infrastructure, and the vMX integrates deeply with the rest of the Meraki stack to provide secure SD-WAN connectivity across all of your services on a single network.

## A common, self-configuring network for distributed computing

The vMX can connect networks together across an array of distributed services, ranging from:

- Site-to-site
- Site-to-cloud
- Cloud-to-cloud
- Region-to-region

Moreover, the vMX is capable of securing your entire network with Meraki Auto VPN. Designed for optimal security and data transmission performance, the vMX is the fastest and simplest way to securely connect distributed services anywhere.

## Industry-leading cloud management

The award-winning cloud-management architecture from Meraki unifies LAN and WAN management under a web-based dashboard and scales easily from small to large multi-site deployments with tens of thousands of devices. The Meraki dashboard provides intuitive yet powerful role-based administration, firmware updates, configuration changes, email alerts, and easy-to-audit change logs.

# vMX specifications

	vMX Small	vMX Medium	vMX Large
			
Best suited for			
Cloud adoption stage	Early	Intermediate	Advanced
Workloads best suited for	Basic (e.g., point-of-sale, serverless functions, event-driven tasks, database changes)	Critical (e.g., container-based microservices, APIs, backup and disaster recovery, DevOps application testing)	Advanced (e.g., high-performance computing, data modeling)
Physical sites per vMX	Connect up to 50 sites	Connect up to 250 sites	Connect up to 750 sites
VPN throughput	Up to 200 Mbps	Up to 500 Mbps	Up to 1 Gbps
Number of tunnels for site-to-site VPN	Up to 50	Up to 250	Up to 1,000
Cloud hyperscalers			
<a href="#">Amazon Web Services</a> <sup>3</sup>	✓	✓	✓
<a href="#">Google Cloud</a>	✓	✓	✓
<a href="#">Microsoft Azure</a>	✓	✓	Coming soon
<a href="#">Alibaba Cloud</a> <sup>3</sup>	✓	✓	✓
<a href="#">NFVIS on UCS</a> <sup>4</sup>	✓	✓	✓
Security and SD-WAN			
<a href="#">Auto VPN</a>	✓	✓	✓
<a href="#">BGP</a>	✓	✓	✓
<a href="#">NAT mode</a>	✓	✓	✓
<a href="#">IPv6 capable</a>	✓	✓	✓




<sup>3</sup> Support for China public cloud regions

<sup>4</sup> Network Function Virtualization Infrastructure Software (NFVIS) on Cisco Unified Computing System

## vMX specifications

	vMX Small	vMX Medium	vMX Large
			
Security and SD-WAN (continued)			
One WAN and one LAN port (MX 18.2+)	✓	✓	✓
Security filtering (MX 19.1+)	✓	✓	✓
Advanced Malware Protection (MX 19.1+)	✓	✓	✓
Intrusion Detection/Prevention (MX 19.1+)	✓	✓	✓
Security Center (MX 19.1+)	✓	✓	✓
Connectivity			
Site-to-site	✓	✓	✓
Site-to-cloud	✓	✓	✓
Cloud-to-cloud <sup>5</sup>	✓	✓	✓
Region-to-region <sup>6</sup>	✓	✓	✓
High availability (redundancy)	Yes, with vMX pair		
Remote worker-to-cloud	Yes with <a href="#">Cisco AnyConnect VPN</a> + vMX-powered hybrid cloud		
Advanced Features			
Validated and automated architectures	✓	✓	✓
High availability	✓	✓	✓

## vMX specifications

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<b>Multi-Region Cloud Networking</b>			
<a href="#"><u>AWS Transit Gateway</u></a>	✓	✓	✓
<a href="#"><u>AWS Cloud WAN</u></a>	✓	✓	✓
<a href="#"><u>Azure RouteServer</u></a>	✓	✓	Coming soon
<a href="#"><u>Azure vWAN</u></a>	✓	✓	✓
<a href="#"><u>Google Network Connectivity Center</u></a>	✓	✓	✓
<b>Management</b>			
<a href="#"><u>Device management</u></a>	Meraki dashboard (GUI) API		
<b>Deployment</b>	Three-step hybrid cloud		
<a href="#"><u>Firmware management</u></a>	Automatic or à-la-carte control		
<b>Other Meraki technologies available on the same platform</b>	Security and SD-WAN (via on-premises MX)		
<b>Remote diagnostics</b>	Email, SMS, and mobile push notification alerts Ping, trace route, cable testing, and link failure detection with alerting Remote packet capture Combined event and configuration change logs with instant search DM logging via local status page		

<sup>5</sup> The vMX can connect services both within public cloud hyperscalers and across different public cloud hyperscalers

<sup>6</sup> The vMX can connect services across cloud regions from the same, or different, public cloud hyperscalers

To learn more,  
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