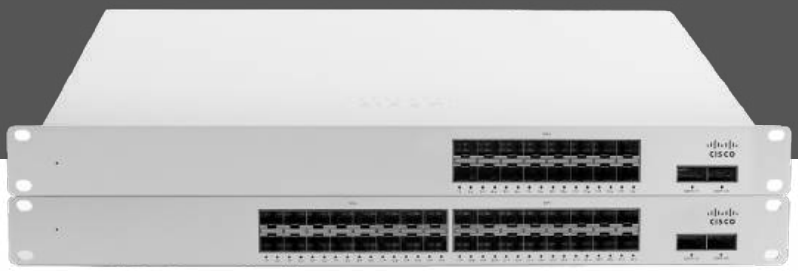
MS425 Series

40G fiber aggregation switches designed for large enterprise and campus networks



Aggregation switching with Meraki

The Cisco Meraki **MS425 series** extends cloud management across the aggregation layer for medium-size networks with our 10/40G fiber aggregation switches.

As with our access layer switches, our aggregation switches are built from the ground up to be easy to manage without compromising any of the power and flexibility traditionally found in enterprise-class switches.

To bring up a Meraki switch, simply plug it in. Meraki switches do not require CLI for switch configuration or port management.

Meraki's centralized management gives administrators granular visibility into their network. Our dashboard helps you keep track of every configuration change in your network with our detailed event and change logs.

Industry-leading cloud management

Cloud management has a number of benefits that make it easier to build campus networks:

- Automatic email alerts from power loss, downtime, excessive Layer 1 errors, or configuration changes
- Powerful remote diagnostic tools such as packet capture to help isolate and troubleshoot network issues
- Firmware upgrades and enhancements from the Meraki cloud
- Virtual Stacking enables switch port configuration changes on the dashboard interface without the need to physically stack switches
- Incredible network transparency with application, operating sys-tem, client, and hostname visibility
- Zero-touch provisioning for rapid deployment across sites

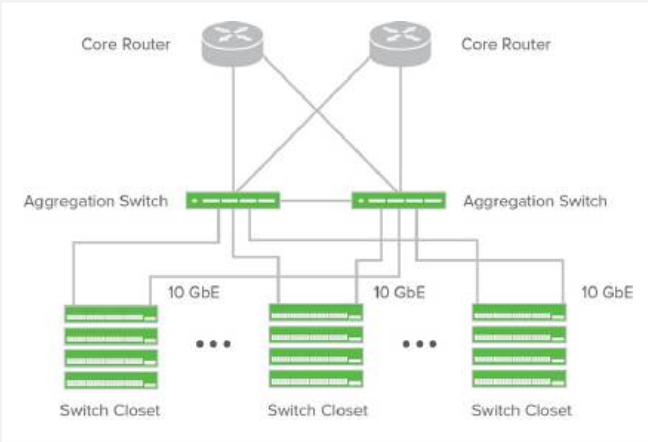
Product highlights

- Use any port to physically stack switches (flexible stacking)
- Aggregation switches to connect multiple access layer devices for a more versatile network
- Available models with 16 or 32 x 10G SFP+ ports to support small- and medium-size enterprises
- 40G uplink interfaces on all models
- Support for field replaceable, redundant power supplies
- Up to 800 G of switching capacity
- 6 configurable QoS queues for converged voice, video, and data applications
- Integrated mounting brackets for rack mounting
- Lifetime hardware warranty and advanced replacement at no additional cost

Meraki switches feature high-end hardware features, including:

- Flexible stacking; use any port of physically stack devices
- Compact, 1RU design for space-constrained environments
- Terabit performance with non-blocking architecture
- Field-replaceable, hot-swappable power supplies/fans
- Front-to-back cooling
- Dedicated management port
- Low power consumption and shallow rack depth, which enable flexible deployment
- Stacking option for building redundant architectures

Designed for a complete cloud-managed switch network



Enterprise-ready features:

Meraki switches include all of the traditional Ethernet features found in the enterprise:

- IEEE 802.1X, MAB, and Hybrid authentication support for wired access control with RADIUS server monitoring
- ACL support (IPv4 & IPv6) and MAC whitelisting
- Single-Host/Multi-Domain/Multi-Host/Multi Authentication
- Change of Authorization (CoA) and RADIUS accounting support
- DHCP snooping to protect against rogue DHCP servers on the network
- Dynamic ARP Inspection to prevent man-in-the-middle attacks
- Rapid Spanning Tree, BPDU guard, root guard, loop guard, and other safeguards to help prevent misconfigurations and reduce convergence time
- Per port VLAN configuration, Voice VLAN support for simplified VoIP deployments
- Port Mirroring to monitor network traffic
- IGMP Snooping to optimize network performance for multicast applications
- Multiple administrative roles with sophisticated security policy management
- Link Aggregation Control Protocol (LACP) for high-capacity trunk-ing, with Multichassis (MLAG) support on stacked switches
- Quality-of-Service (QoS) to prioritize mission-critical traffic such as voice and video
- CDP, LLDP advertisement and snooping, with detailed neighbor visibility and discovery

Lifetime warranty with next-day advanced replacement

Cisco Meraki MS switches include a limited lifetime hardware warranty that provides next-day advance hardware switch replacement as long as the original purchaser owns the product. Meraki's simplified software and support licensing model also combines all software upgrades, centralized systems management and phone support under a single, easy-to-understand model.

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

MS425 series dimensions & interfaces

Model	Physical dimensions (H x W x D)*	Weight	Interface	Switching capacity	Stacking bandwidth
MS425-16-HW	1.72" x 19.07" x 20.67" (4.42cm x 48.44cm x 48.69cm)	13.7 lbs (6.2 kg)	• 16 x 10G SFP+ fiber • 2 x 40G QSFP+ uplink/ stacking ports • RJ45 Management port	480 Gbps	160 Gbps
MS425-32-HW	1.72" x 19.07" x 20.67" (4.42cm x 48.44cm x 48.69cm)	14.00 lbs (6.35 kg)	• 32 x 10G SFP+ fiber • 2 x 40G QSFP+ uplink/ stacking ports • RJ45 Management port	800 Gbps	160 Gbps

*Depth includes PSU

Power options & specifications

Model	Idle / Full load power	Power supply configuration	Supported power supply
MS425-16-HW	98 / 136 W	Hot-swappable	2 x 250W PSU*
MS425-32-HW	98 / 136 W	Hot-swappable	2 x 250W PSU*

* Single power supply (PSU) included. For redundancy, second PSU is sold separately

What's included

All models

1 x Power Supply (MA-PWR-250WAC), Mounting screw kit, 2 x Pre-Installed Fans



Optional accessories / optics

Meraki switches are modular in design, allowing for hot-swappable field replacements and a range of optics (no lock-out of third-party optics). Details of SFP-based modules can be found in the SFP Datasheet, available in the Meraki Library.

Description	Accessory	Supported Models
Meraki 40GbE Stacking / Uplink Cable, 0.5 Meter	MA-CBL-40G-50CM	MS425
Meraki 40GbE Stacking / Uplink Cable, 1 Meter	MA-CBL-40G-1M	MS425
Meraki 40GbE Stacking / Uplink Cable, 3 Meter	MA-CBL-40G-3M	MS425
Field replaceable 18K rpm front-to-back fan	MA-FAN-18K	MS425
Field replaceable 250W power supply	MA-PWR-250WAC	MS425

MS425 specifications

Management

- Managed via the Web with the Meraki cloud management platform
- Integrated with Meraki Wireless and complete portfolio of IT products and solutions
- Zero-touch remote provisioning (no staging needed)
- Detailed historical per-port and per-client usage statistics
- Operating system, device, and hostname fingerprinting
- SNMP and SYSLOG support for integration with other network management solutions
- Automatic firmware upgrades with scheduling control

Remote diagnostics

- Email, SMS and mobile push notification alerts[1]
- Ping, traceroute, cable testing, and link failure detection with alerting
- Remote packet capture
- Dynamic and interactive network discovery and topology
- Combined event and configuration change logs with instant search

Stacking

- Virtual Stacking supports thousands of switch ports in a single logical stack for unified management, monitoring, and configuration
- Physical stacking of up to 8 switches with 160 Gbps stack bandwidth
- Flexible stacking on all interfaces and SFP+/QSFP+ accessory types, up to 8 switches

Performance

- Non-blocking fabric
- 72/144 Gbps switching capacity on MS410-16/32
- 1.2 microsecond latency
- Jumbo frame support (9578 ethernet frame)

Ethernet switching capabilities

- 802.1p Quality of Service, 8 queues (w/ 6 configurable for DSCP-to-CoS mapping)
- 802.1Q VLAN and trunking support for up to 4,094 VLANs
- 802.1w, 802.1D Rapid Spanning Tree Protocol (RSTP, STP)
- STP Enhancements: BPDU guard, Root guard, Loop guard, UDLD
- Broadcast storm control
- 802.1ab Link Layer Discovery Protocol (LLDP) and Cisco Discovery Protocol (CDP)
- 802.3ad Link aggregation with up to 8 ports per aggregate, Multichassis aggregates supported on stacked switches
- Port mirroring
- IGMP snooping for multicast filtering
- MAC Forwarding Entries: 28K

Layer 3 capabilities

- Static routing, OSFPv2
- Multicast routing
- Warm Spare (VRRP) [2]
- DHCP Relay, DHCP Server

Power

- Power input: 100 - 240 VAC, 47-63 Hz
- Power consumption: 98-136W

[1] Requires carrier-supported email to SMS gateway

[2] OSPF and Warm Spare do not operate concurrently (stacking is recommended for gateway redundancy)

MS425 specifications

Interfaces

16 or 32 x 10G SFP+

4 x 40G QSFP+

1x RJ45 Management port

Environment

Operating temp: 0°C to 40°C, Humidity: 5 to 95% non-condensing

Regulatory

CSA (US)

IC (Canada)

FCC (USA)

CE (Europe)

C-Tick (Australia/New Zealand)

RoHS

Warranty

Full lifetime hardware warranty with next-day advanced replacement included

MTBF

MS425-16	284,423 hrs
MS425-32	287,587 hrs