

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 system, client, and hostname visibility
- Zero-touch provisioning for rapid deployment across sites

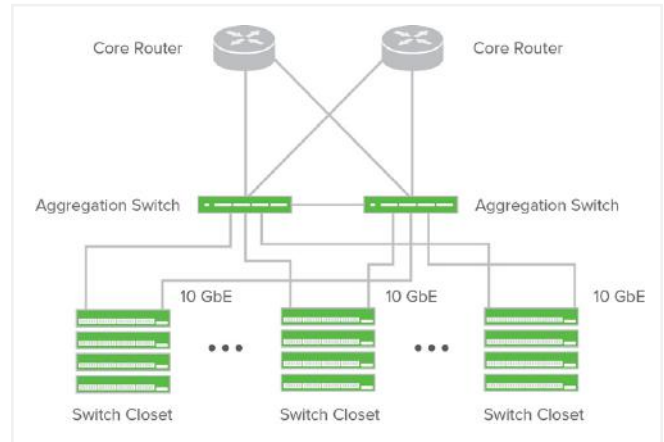
Product highlights

- 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) | <ul style="list-style-type: none"> • 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) | <ul style="list-style-type: none"> • 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 alerts¹

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)

¹ Requires carrier-supported email to SMS gateway

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

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, OSPFv2

Multicast routing

Warm Spare (VRRP)²

DHCP Relay, DHCP Server

Power

Power input: 100 - 240 VAC, 47-63 Hz

Power consumption: 98-136W

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 |