Introduction to Cloud Managed Networking

Cisco Meraki solution overview
About Cisco cloud-managed networking

Cisco Meraki: a complete cloud-managed networking solution
- Wireless, switching, security, WAN optimization, and MDM, centrally managed over the web
- Built from the ground up for cloud management
- Integrated hardware, software, and cloud services

Leader in cloud-managed networking
- Among Cisco’s fastest-growing portfolios: over 100% annual growth
- Tens of millions of devices connected worldwide

Recognized for innovation
- Gartner Magic Quadrant, InfoWorld Technology of the Year, CRN Coolest Technologies

Trusted by thousands of customers worldwide:
Why cloud managed networking?
The cloud increases IT efficiency

- Turnkey installation and management
- Integrated, always up to date features
- Scales from small branches to large networks
- Reduces operational costs
Cisco Meraki: Bringing the cloud to enterprise networks

Meraki MR
Wireless LAN

Meraki MS
Ethernet Switches

Meraki MX
Security Appliances

Meraki SM
Mobile Device Management
An integrated solution for new IT challenges

- 1 billion iOS & Android devices
- HD video and rich media
- New business opportunities
- Integrated mobile device management
- Layer 7 application shaping
- Analytics and user engagement

A complete solution out of the-box:
No extra hardware, software, or complexity
Cloud architecture
Out of band cloud management in every product

Scalable
- Unlimited throughput, no bottlenecks
- Add devices or sites in minutes

Reliable
- Highly available cloud with multiple datacenters
- Network functions even if connection to cloud is interrupted
- 99.99% uptime SLA

Secure
- No user traffic passes through cloud
- Fully HIPAA / PCI compliant (level 1 certified)
- 3rd party security audits, daily penetration testing
- Automatic firmware and security updates (user-scheduled)

Reliability and security information at meraki.cisco.com/trust
Cloud-managed networking architecture

- Network endpoints securely connected to the cloud
- Cloud-hosted centralized management platform
- Intuitive browser-based dashboard
Scalable cloud infrastructure

Telmex
Nationwide hotspot and 3G offload network

Dress Barn
Nation-wide deployment spanning hundreds of retail stores

Motel 6
70,000 hotel room deployment

Jeffco School District
80,000 student district with 100+ schools

Proven in 10,000+ endpoint deployments
Intuitive web-based dashboard

- Wired + wireless
- Client fingerprints
- Application QoS
- Instant search
- Location analytics
- Real-time control
SaaS feature delivery

BYOD feature velocity, past 36 months:

- Client Fingerprinting
- Application traffic shaping
- Antivirus scan / NAC
- Mobile device management
- Device-based group policies
- Enterprise app deployment
- MDM-aware access control

2010 2011 2012 2013

Feature updates seamlessly delivered from the cloud (user-scheduled)
Adapts to new devices, applications, and business opportunities
Solution highlights
Distributed networks

Centralized cloud management scales to thousands of sites

Multi-site visibility and control
Map-based dashboard; configuration sync; remote diagnostics; automatic monitoring and alerts

Zero-touch provisioning
Devices automatically provision from the cloud, no staging required; self-configuring site-to-site VPN

Traffic acceleration
WAN optimization and web caching accelerates and de-duplicates network traffic; application-aware QoS prioritizes productivity apps
High capacity edge networks

RF optimization and application-aware QoS for high-throughput, high-density WLAN

Layer 7 application traffic shaping
Throttle, block, or prioritize application traffic with DPI-based fingerprinting; set user and group-based shaping rules

Cloud-base RF optimization
Dynamically avoid interference, optimizing channel selection and power levels

Density-optimized WLAN
RF platform tuned for airtime fairness and performance in dense performance-critical environments
Bring your own device (BYOD)

Out-of-the-box security, management, and capacity for BYOD-ready deployments

Device-aware security
- Device-aware firewall and access control
- Antivirus scan
- LAN isolation
- Bonjour Gateway
- Content and security filtering

Integrated MDM
- Enforce encryption, passcodes, and device restrictions
- Deploy enterprise applications
- Remotely lock or wipe devices

Simplified onboarding
- Flexible authentication with AD integration
- SMS authentication
- Hosted splash pages
- Automatic MDM enrollment
User analytics and engagement

**Optimize marketing and business operations**
Analyze capture rate, dwell time, and new / repeat visitors to measure advertising, promotions, site utilization, etc.

**Built-in analytics**
Integrated into WLAN, no extra sensors, appliances, or software

**Extensible API**
Integrate location data with CRM, loyalty programs, and custom applications for targeted real-time offers
Flexible authentication and access control

- **Flexible authentication**
  - Secure 802.1x and Active Directory authentication; Facebook Authentication for branding and targeted social marketing; SMS self-service authentication, Lobby Ambassador, and hosted sign-on splash pages

- **Dynamic access control**
  - Assign clients layer 3-7 firewall rules, VLANs, and application-aware quality of service by identity, group, location, or device type
Simplified enterprise security

Enterprise-class security features for security-conscious environments

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<th>Air Marshal WIDS/WIPS</th>
<th>Detect wireless attacks; contain rogue APs; cloud-based alerting and diagnostics</th>
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<td>User and device aware security</td>
<td>User, device, and group-based firewall rules (layer 3-7) with Active Directory integration</td>
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<td>Complete NG firewall and content security</td>
<td>Application firewall; content filtering matching 1B+ URLs; antivirus / antimalware filtering; Google safe-search</td>
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Case studies
Case study: Applebee’s

“The Meraki Dashboard makes it easy to manage the WiFi across all the restaurants, and we have the visibility we wanted.”

Leslie McMasters, Network Administrator, Apple American Group
Case study: Milpitas Unified School District

- California school district with 14 schools, 10,000 students
- Deployed cloud-managed firewall, 500 wireless APs (indoor + outdoor), and 100 Ethernet switches
- Enabled 1:1 Google Chromebook deployment and BYOD policy
- Application visibility and control optimizes bandwidth across 10k+ clients

“The Dashboard, the traffic shaping, and the MDM were real advantages. We can see the traffic and devices on the fly.”

Chin Song, Director of Technology, Milpitas Unified School District
Case study: Mosaic

- Healthcare and services provider with 5,000 employees, 40 facilities across 11 states
- Deployed 350 cloud-managed wireless APs, switches, and security appliances
- HIPAA-compliant WiFi for electronic medical records and guest access
- Centrally managed by small IT staff

“The Meraki solution has provided us with a secure, centrally managed distributed network.”

Daniel McDonald, Systems Integration Manager, Mosaic
Product Families
MR wireless access points

5 models including indoor / outdoor, high performance and value-priced

Enterprise-class silicon including RF optimization, PoE, voice / video support

Lifetime warranty on indoor APs
MX security appliances

6 models scaling from small branch to campus / datacenter

Complete networking and security in a single appliance

Feature highlights

- Zero-touch site to site VPN
- WAN optimization
- NG firewall
- Content filtering
- WAN link bonding
- Intrusion detection
MS access switches

Gigabit edge switches in 24 and 48 port configurations with available PoE

Enterprise-class performance and reliability including non-blocking Gigabit performance, PoE on all ports, 10GbE uplinks, and voice and video QoS
Device Management controls iOS, Android, Mac, and Windows devices

Cloud-based - no on-site appliances or software, works with any vendor’s network

100% free - available at no cost to any organization, sign up at meraki.cisco.com/sm
Free evaluations available

Try Cisco Meraki with no risk or commitment
Complimentary technical assistance available
Start eval at meraki.cisco.com/eval
Let’s demo

Thank you.