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
An integrated solution for new IT challenges

1 billion iOS & Android devices

Integrated mobile device management

HD video and rich media

Layer 7 application shaping

New business opportunities

Analytics and user engagement

A complete solution out of the-box:
No extra hardware, software, or complexity
Cloud architecture
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:

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

## 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

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**Out-of-the-box security, management, and capacity for BYOD-ready deployments**
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 built-in authentication mechanisms

- Click-through: Users must view and acknowledge your splash page before being allowed on the network.
- Sign-on with Facebook Wi-Fi: Require users to check in to your Facebook Page before gaining access to your network. Configure Facebook settings here.
- Sign-on with SMS Authentication (BETA): Users enter a mobile phone number and receive an authorization code via SMS.

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

Air Marshal WIDS/WIPS
- Detect wireless attacks; contain rogue APs; cloud-based alerting and diagnostics

User and device aware security
- User, device, and group-based firewall rules (layer 3-7) with Active Directory integration

Complete NG firewall and content security
- Application firewall; content filtering matching 1B+ URLs; antivirus / antimalware filtering; Google safe-search
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

- Wireless LAN spanning over 270 restaurants nationwide
- Customer engagement through guest access, coupons, promotions
- PCI-compliant solution enables mobile POS
- Restaurants centrally managed over the web
- Deployed without pre-staging or on-site IT
Case study: Milpitas Unified School District

“\textit{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

“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

6 models including indoor / outdoor, high performance (802.11ac) and value-priced

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

Lifetime warranty on indoor APs
6 models scaling from small branch to campus / datacenter

Complete networking and security in a single appliance
**MS access & aggregation switches**

Gigabit access switches in 8, 24, and 48 port configurations, PoE available on all ports

10 Gigabit SFP+ aggregation switches in 24 and 48 port configurations

Enterprise-class performance and reliability including non-blocking performance, voice/video QoS, and a lifetime warranty

**Feature highlights**

Voice and video QoS
Layer 7 app visibility
Virtual stacking
PoE / PoE + on all ports
Remote packet capture, cable testing
**Systems Manager mobile device management**

- **Feature highlights**
  - Centralized app deployment
  - Device security
  - Rapid provisioning
  - Backpack™ file sharing
  - Asset management

**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
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
Free evaluations available

Try Cisco Meraki with no risk or commitment

Complimentary technical assistance available

Start eval at meraki.cisco.com/eval
Thank you.