



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



Manageability



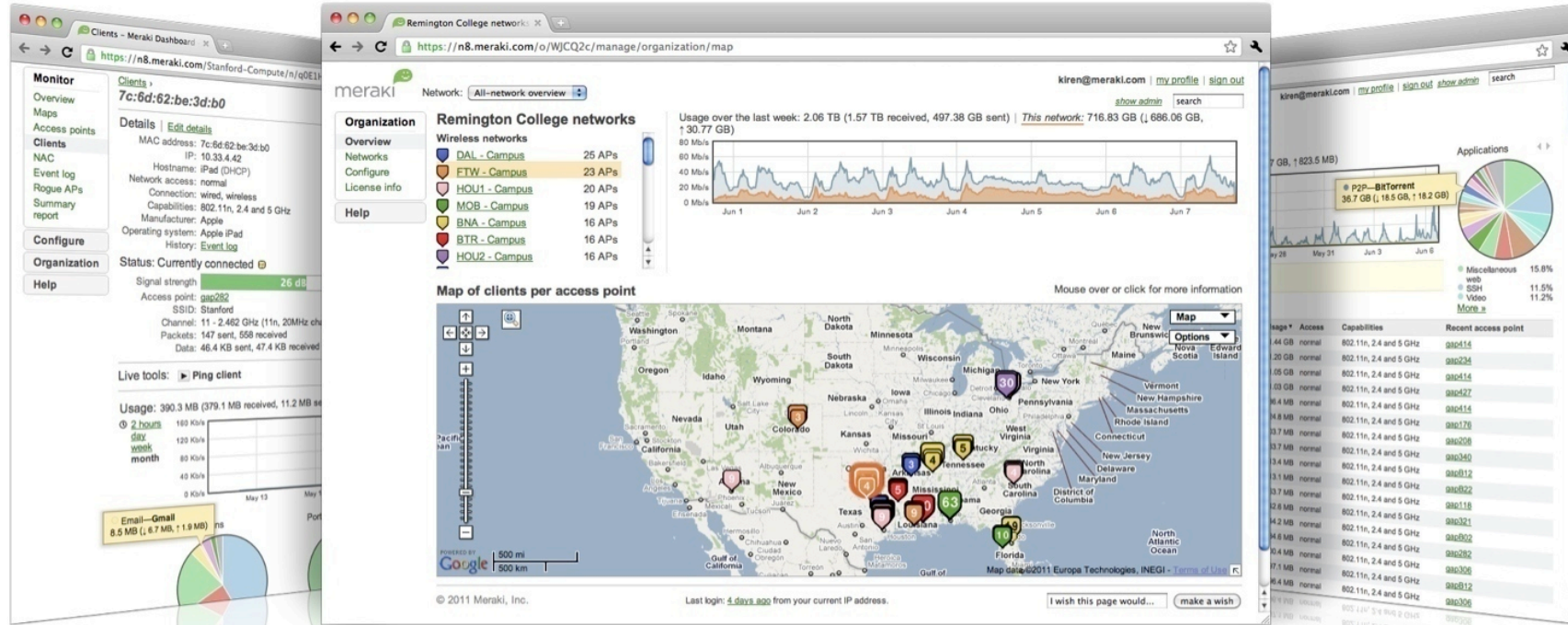
Scalability



Cost Savings

- 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

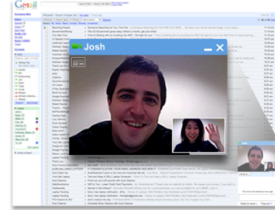
An integrated solution for new IT challenges



1 billion iOS & Android devices



Integrated mobile device management



HD video and rich media



Layer 7 application shaping



New business opportunities

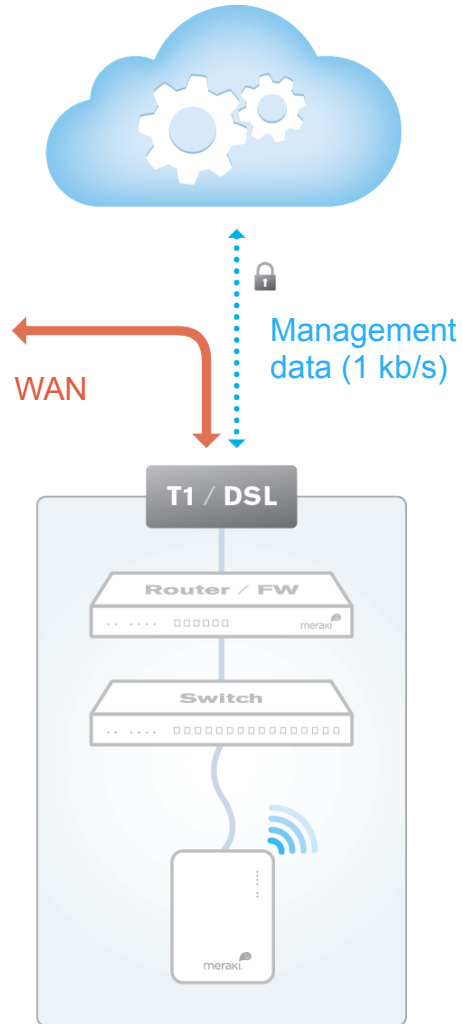


Analytics and user engagement

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

Cloud architecture

Out of band cloud management in every product



Scalable

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

Reliable

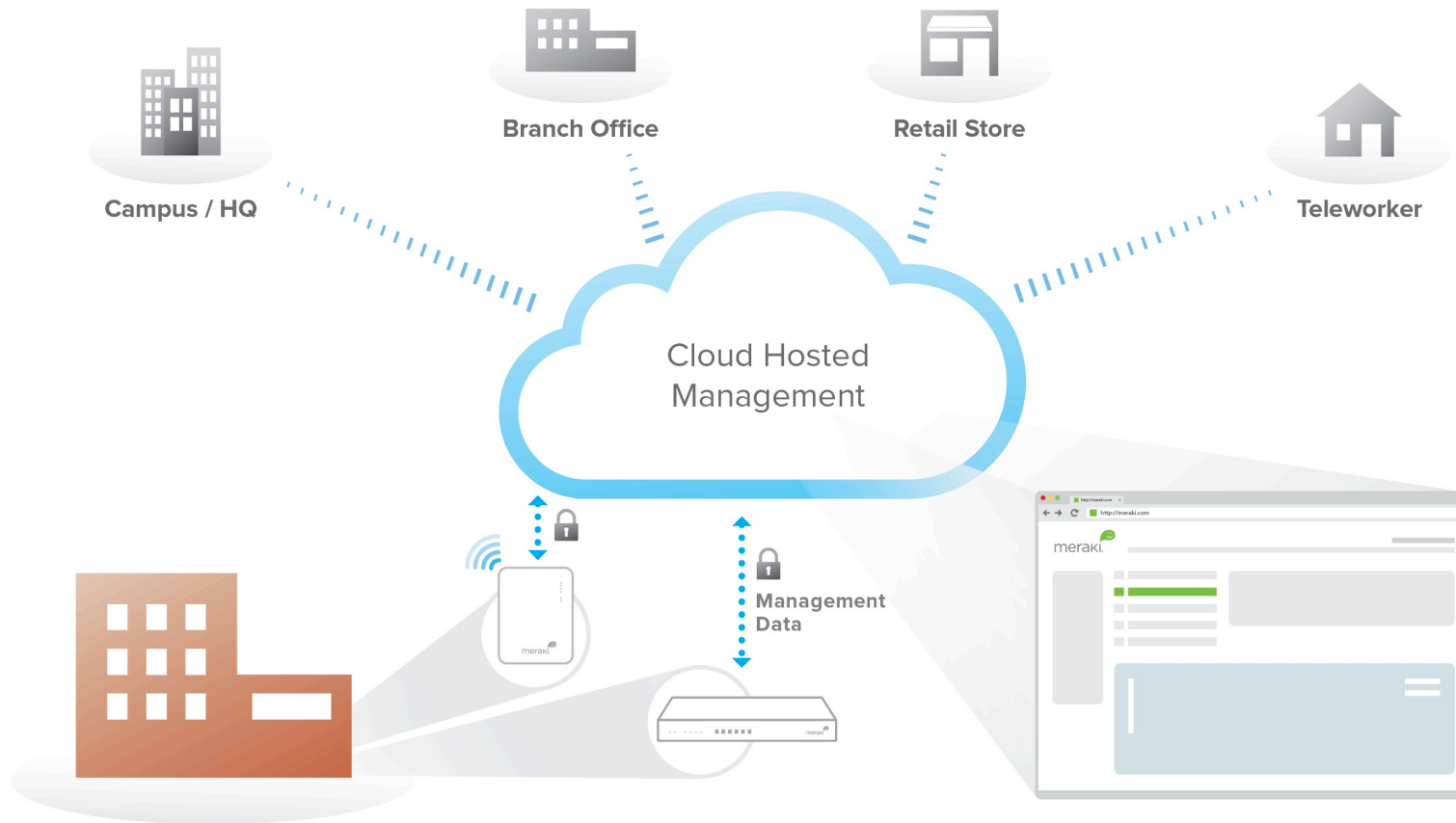
- Highly available cloud with multiple datacenters
- Network functions even if connection to cloud is interrupted
- 99.99% uptime SLA

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

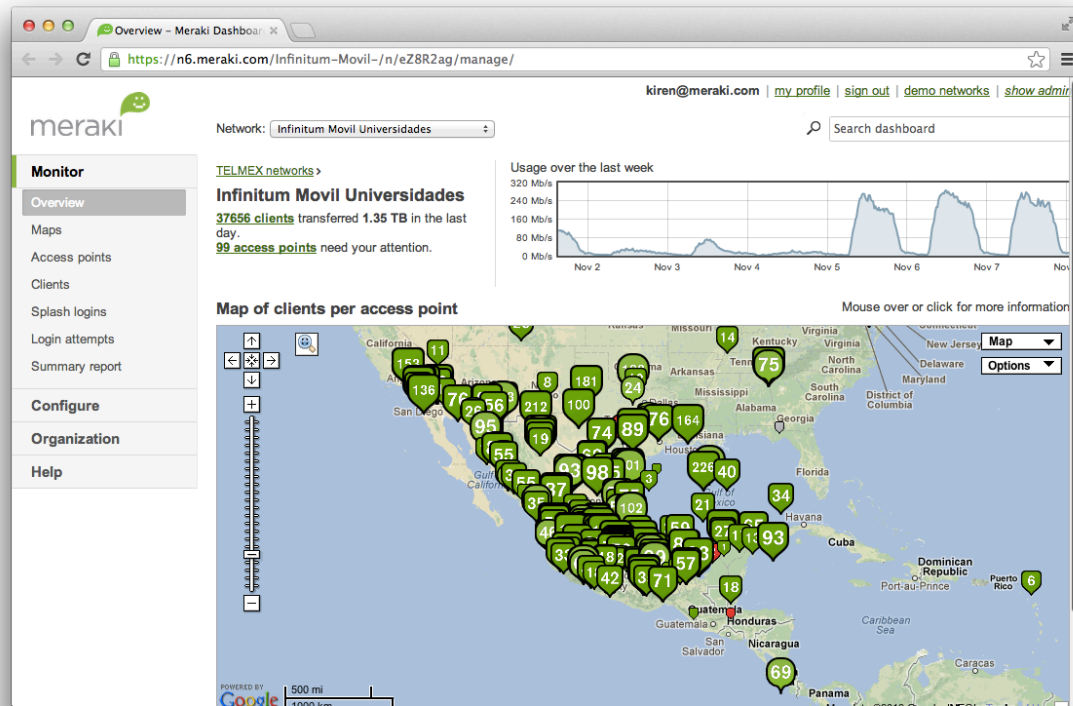


Network endpoints securely connected to the cloud

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

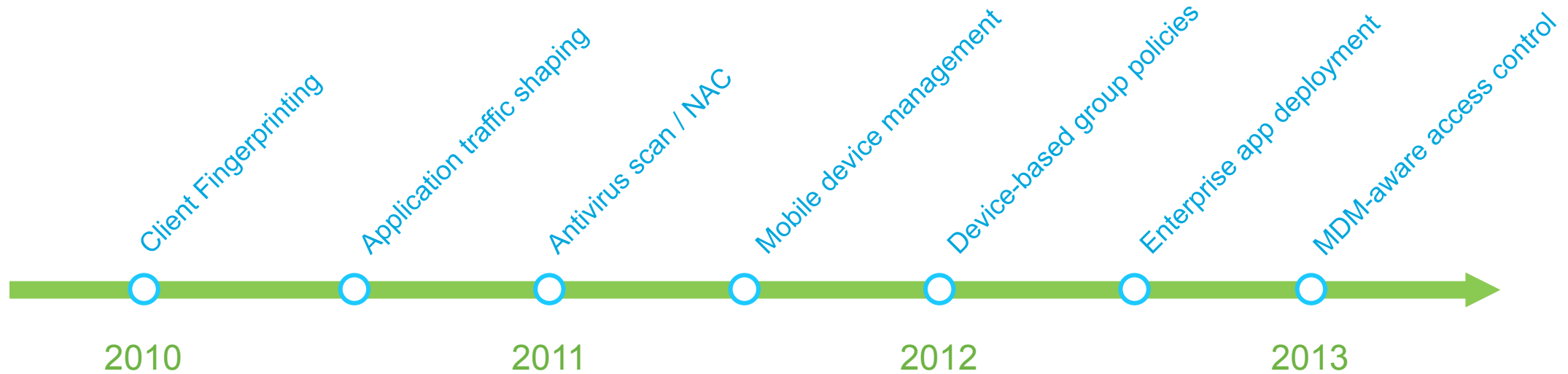
Location analytics

Real-time control

The screenshot displays the Meraki dashboard interface for a specific client, 'cmedranos-iPad'. The interface includes a navigation sidebar on the left with sections for Monitor, Configure, and Organization. The main content area shows client details such as MAC address (a4:67:06:77:e4:9f), IP (10.80.108.28), and hostname (cmedranos-iPad). It also displays network access information, signal strength (30 dB), and usage statistics. A map view shows the client's approximate location on the 4th floor. At the bottom, there are four pie charts representing Applications, Ports, HTTP content, and a Custom Pie Chart. The dashboard also features a search bar at the top right and a 'Live tools' section with a 'Ping client' button.

SaaS feature delivery

BYOD feature velocity, past 36 months:

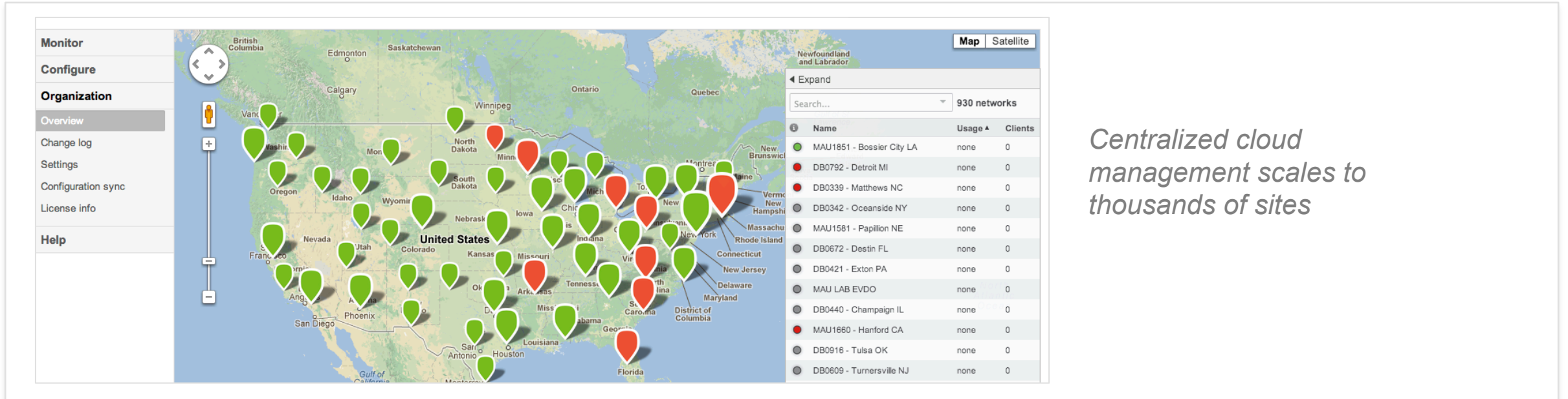


Feature updates seamlessly delivered from the cloud (user-scheduled)

Adapts to new devices, applications, and business opportunities

Solution highlights

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

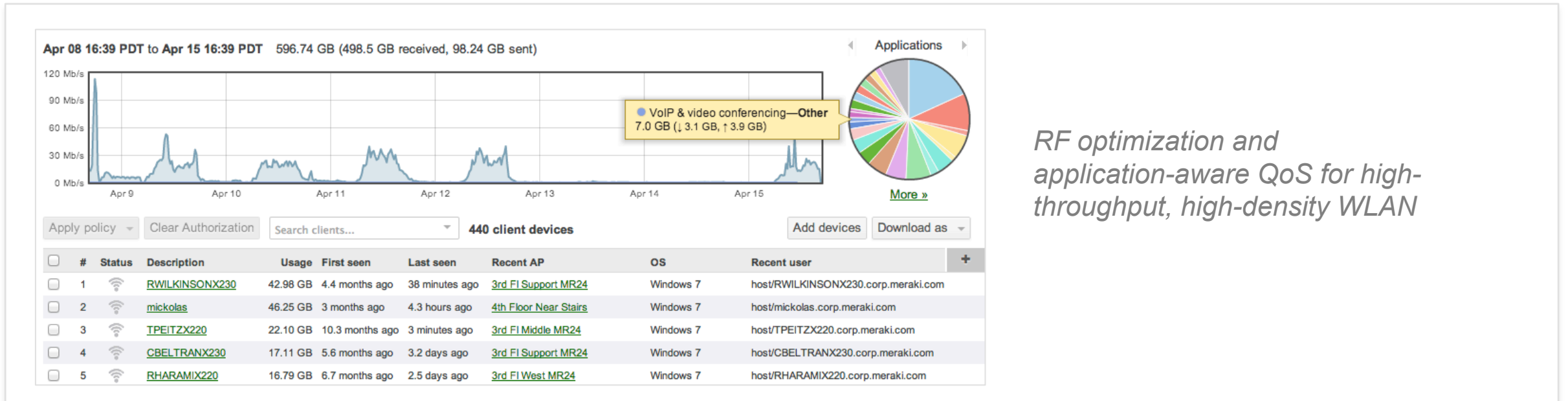
Zero-touch provisioning

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

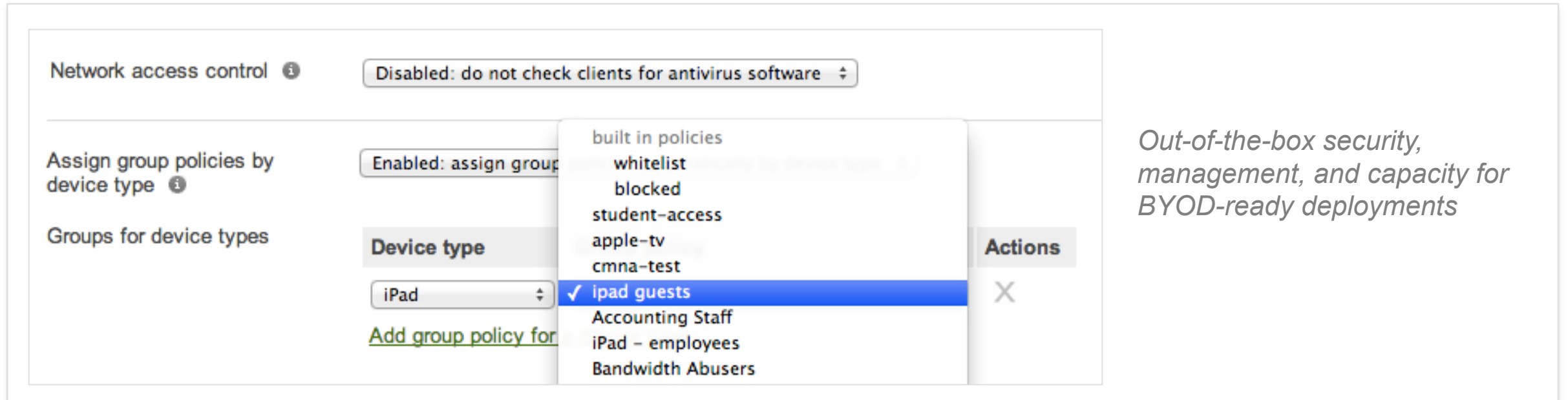
Cloud-base RF optimization

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)



The screenshot shows a network management interface with the following elements:

- Network access control**: A dropdown menu is set to "Disabled: do not check clients for antivirus software".
- Assign group policies by device type**: A dropdown menu is set to "Enabled: assign group policies".
- Groups for device types**: A dropdown menu is set to "iPad".
- Policy List**: A list of policies is shown, with "ipad guests" selected. Other policies include "built in policies", "whitelist", "blocked", "student-access", "apple-tv", "cmna-test", "Accounting Staff", "iPad - employees", and "Bandwidth Abusers".
- Actions**: A button with an "X" icon is visible.

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

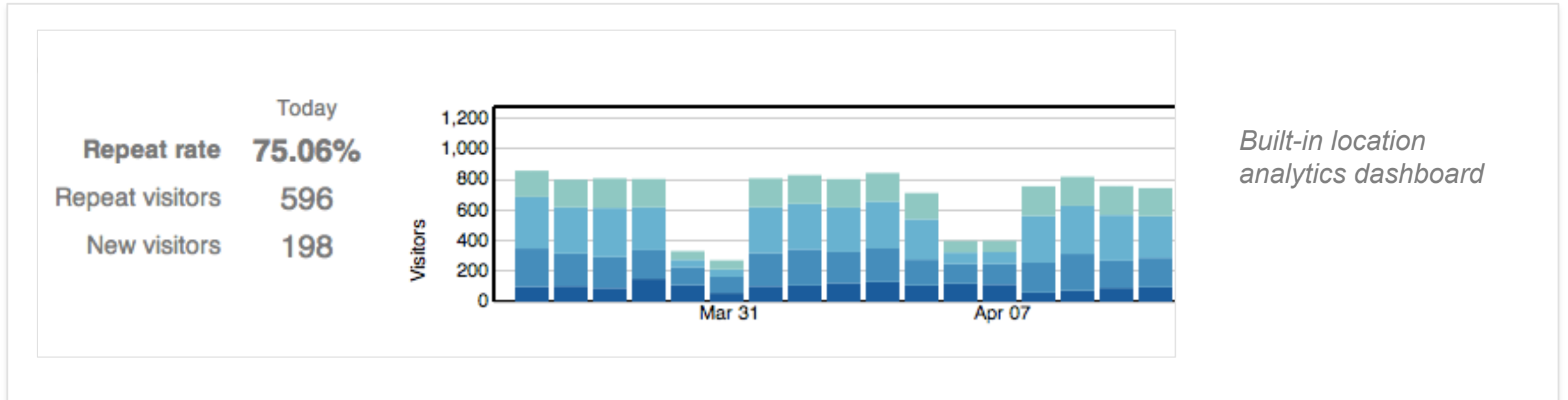
Integrated MDM

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, and 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

- Click-through
Users must view and acknowledge your splash page before being allowed on the network
- Sign-on with
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 built-in authentication mechanisms

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

Air Marshal

Scanning APs ③ **4 APs** in dedicated Air Marshal mode.


LAN containment ③

Keyword containment ③
One keyword per line.

Off-channel scans ③

Mandatory scan schedule S M T W T F S

or .



26 Rogue SSIDs | [439 Other SSIDs](#) | [5 Spoofs](#) | [0 Malicious broadcasts](#) | [212 Packet floods](#)

Containment ③ ▲	SSID	Last seen ③	First seen	# APs	Rogue because	Seen by	Broadcast MACs	+
uncontained	63 hidden SSIDs	Apr 16 18:22	Aug 24 05:57	63	Seen on LAN	4th FL Sales1 (74 dB) 21 more »	12:18:0a:31:87:50 62 more »	
uncontained ▼	SG3 FoxFi	Apr 10 00:04	Mar 20 07:09	1	Seen on LAN	4th Floor Near Stairs (34 dB) 1 more »	5c:0a:5b:5f:a4:0f	
uncontained ▼	Daghan Altas's iPhone	Apr 12 08:21	Apr 12 08:21	1	Seen on LAN	Air Marshal - 2nd Floor 1 more »	66:a3:cb:84:ad:bd	
uncontained	Moski Test	Apr 18 04:00	Mar 20 10:55	1	Seen on LAN	2nd FL Support MP24 (8 dB)	10:10:0a:27:00:c4	

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

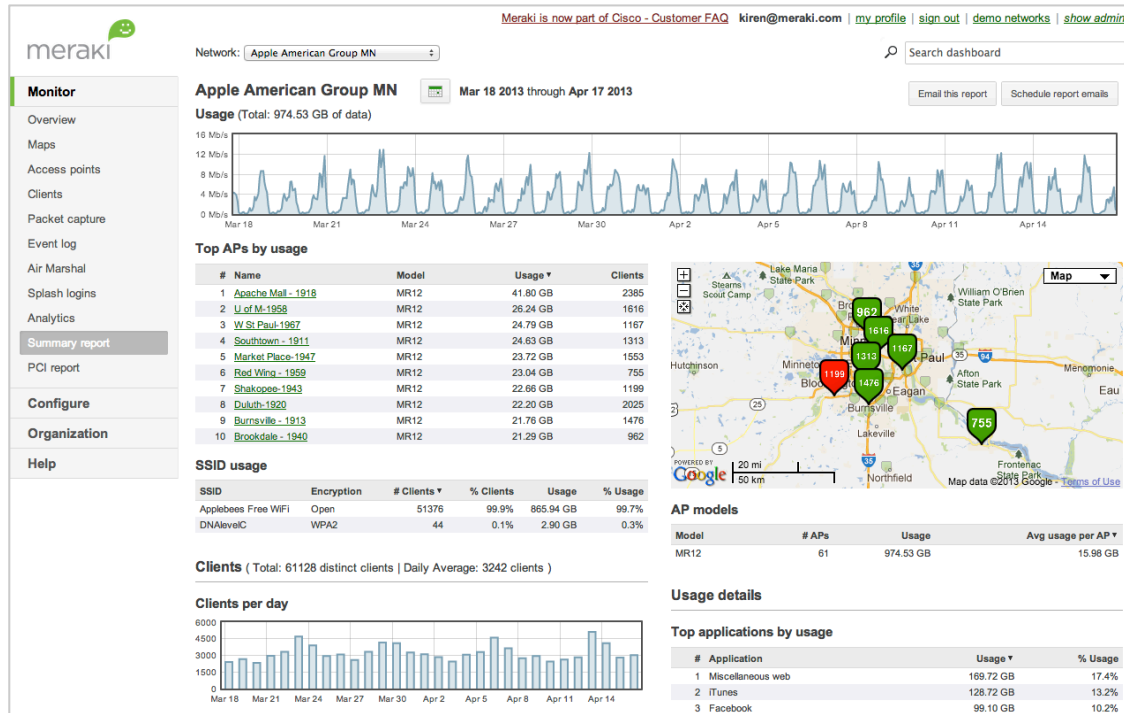
User, device, and group-based firewall rules (layer 3-7) with Active Directory integration

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

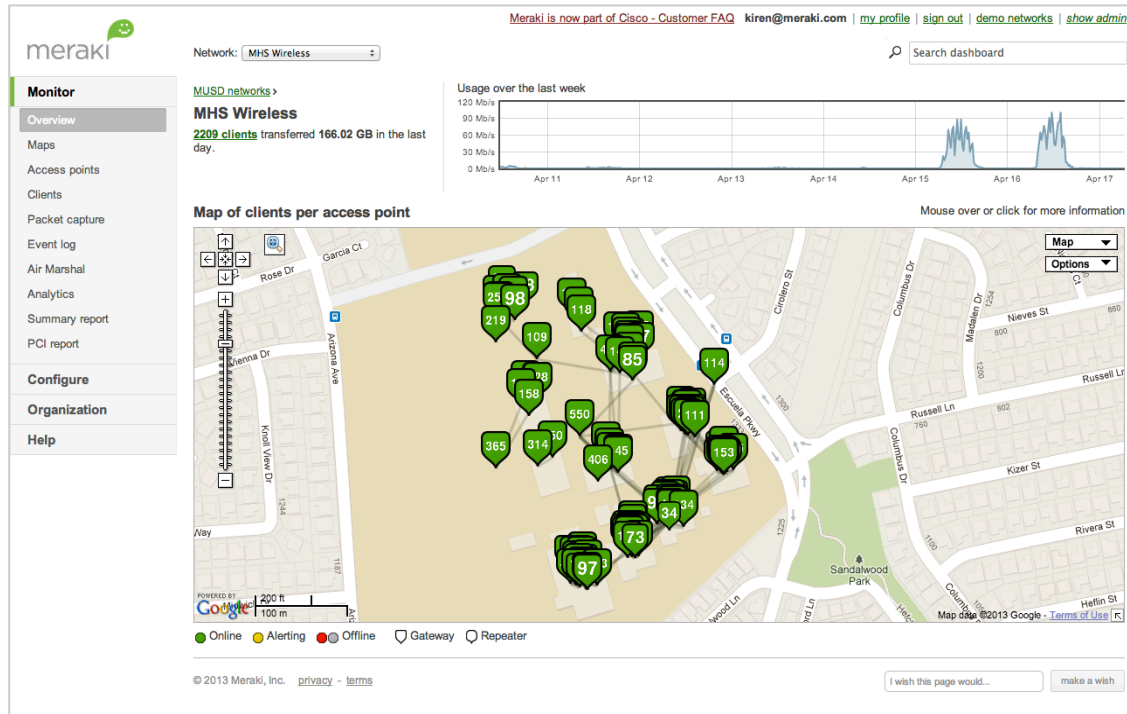


- Wireless LAN spanning over 270 restaurants nationwide
- Customer engagement through guest access, coupons, promotions
- PCI-compliant solution enables mobile POS
- Restaurants centrally managed over the web
- Deployed without pre-staging or on-site IT

“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

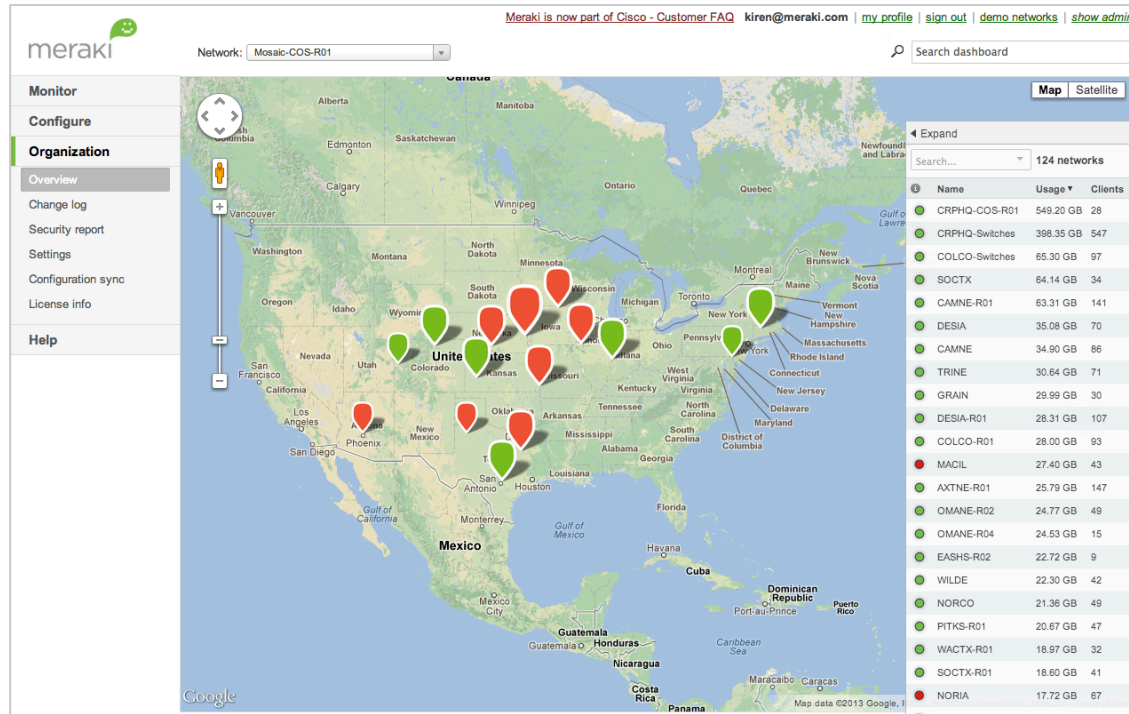


- California school district with 14 schools, 10,000 students
- Deployed cloud-managed firewall, 500 wireless APs (indoor + outdoor), and 100 Ethernet switches
- Enabled 1:1 Google Chromebook deployment and BYOD policy
- Application visibility and control optimizes bandwidth across 10k+ clients

“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



Feature highlights

BYOD policies

Application traffic shaping

Guest access

Enterprise security

WIDS / WIPS

Location analytics

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



Feature
highlights

Zero-touch site to site VPN

WAN optimization

NG firewall

Content filtering

WAN link bonding

Intrusion detection

6 models scaling from small branch to campus / datacenter

Complete networking and security in a single appliance

MS access switches



Feature highlights

Voice and video QoS

Layer 7 app visibility

Virtual stacking

PoE / PoE + on all ports

Remote packet capture,
cable testing

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

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

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.

