Meraki Enterprise Cloud Controller

Datasheet

Centralized Management, Optimization, and Monitoring for Wireless LANs

The Meraki Enterprise Cloud Controller lets administrators build secure and scalable wireless networks quickly, easily, and at a lower cost. It provides centralized management, mobility, and security across multiple access points and deployment sites, and facilitates phenomenal real-time support.

As the world's first hosted wireless LAN controller, the Meraki Enterprise Cloud Controller eliminates the cost and complexity of traditional hardware-based wireless controllers.

Features

Performance and Scalability

Scalable Coverage Create large-scale networks capable of serving thousands of simultaneous 802.11a/b/g/n devices, while providing a single seamless network experience. Meraki's architecture ensures that there are no bottlenecks or single points of failure in the network, and that coverage can be expanded simply by adding access points.

Meraki Mesh™ Extend network coverage to areas without wired Ethernet connections. Meraki's industry leading wireless routing algorithms choose the fastest, most reliable paths through multi-radio, single-radio, and mixed-radio mesh networks.

Auto RF™ Dynamically adapt to changing interference conditions and fully utilize the available wireless spectrum. System-wide channel optimization maximizes client performance and client density in the network.

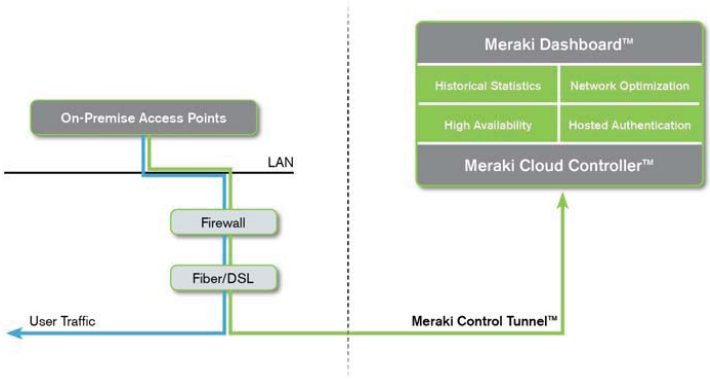
Security

Virtual Network Isolation Operate multiple fully isolated virtual wireless networks, each with its own policies and VLAN-tagged traffic, on a single physical network.

Encryption Prevent eavesdropping on the wireless network with strong, standards-based encryption methods including WEP, WPA2, and AES.

Hosted Directory Services Use best practice WPA2-Enterprise with 802.1x authentication. Authenticate against Meraki's hosted directory service, or integrate with existing RADIUS or Active Directory servers.

Rogue AP Detection Rather than simply reporting all nearby access points, Meraki enables an administrator to quickly identify the access points that may be spoofing the office SSID, or that may be improperly connected to the office's wired network.



Meraki System Architecture: The Meraki system uses a hybrid cloud architecture, connecting on-premise Meraki access points to controller functionality and services hosted in the cloud. Every network is served by multiple datacenters worldwide to ensure reliability.

User Management

Traffic Shaper™ Analyze usage by application and create custom traffic shaping policies on a per user basis. Create bandwidth limits and prioritize critical application traffic, preventing heavy bandwidth users from affecting overall service quality.

Historical Audit Trails Obtain a report about wireless traffic in the last hour or the last month.

Guest Access Provide temporary access to an isolated virtual network for guests and vendors. Provide a fully customizable landing page experience without compromising the organization's internal network.

Centralized Management

Multi-Site Management Manage multiple branch offices or buildings from a single interface.

Web-Based Interface Access the Meraki Cloud Controller through a web browser, from anywhere in the world, to securely monitor and administer the wireless network in real-time. Manage your network with familiar and search and map-based tools.

Summary Reports Highlight the productivity and ROI of a Meraki wireless network with these reports, which can be e-mailed to interested parties on a recurring schedule.

Role-Based Administration Configure multiple administrator accounts with read-only or full privileges.

High Availability Redundant systems in multiple data centers around the world provide a level of availability impossible with on-site network controllers. In addition, the out-of-band control architecture assures that your access points continue to operate even if your Internet connection fails.

"Remote Hands" Test Tools Check the connectivity and performance of a wireless network, simulate user authentication, and more without setting foot on-site or using a command line interface.

Quality of Service

Voice and Power Save Support Provide mobile devices with enhanced call quality and battery conservation using 802.11e/WMM prioritized queuing and Power Save.

Real-Time Support Cloud-based support tools provide support engineers with real-time diagnostics of your network.

Platform

Meraki OS™ Meraki's secure, high-performance operating system was built from the ground up to be robust and auto-configuring with minimal administrative intervention.

Always Up To Date Software Service Continual enhancements to the Cloud Controller and automatic Meraki OS firmware updates make new features available for you to deploy on your network, with no software to install and no upgrades to purchase.

Out-of-Band Architecture No client traffic flows through the Meraki Cloud Controller, ensuring maximum performance and data security.

Meraki Control Tunnel™ Meraki's secure network tunnel between access points and the Cloud Controller provides real-time networking configuration, statistics, and monitoring without any special configuration. Should Internet connectivity to the Cloud Controller be interrupted, the Wireless LAN continues to operate normally.

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Benefits

Easy

The Meraki Enterprise Cloud Controller enables administrators to bring up new wireless deployments in minutes, not days. Meraki access points are plug-and-play, auto-configuring, and self-healing. The Cloud Controller's streamlined web interface reduces upfront installation time and eliminates specialized training, while reducing maintenance and troubleshooting over the long run.

Secure

Meraki provides a wide range of standards-based security and access control options, from simple pre-shared key encryption to enterprise-class 802.1x authentication. Different user groups, such as employees and guests, can be placed in distinct virtual networks that isolate traffic according to corporate policy.

Scalable

The Meraki Enterprise Cloud Controller provides true centralized management without any additional hardware. Centrally manage up to 1,000 wireless networks, each with up to 2,500 access points. Whether the networks are on multiple floors of a building, multiple buildings on a campus, or multiple campuses around the world, an administrator can push a single configuration to all of the networks instantly, and get aggregated usage and connectivity data in a single view.

Industry-Leading Coverage

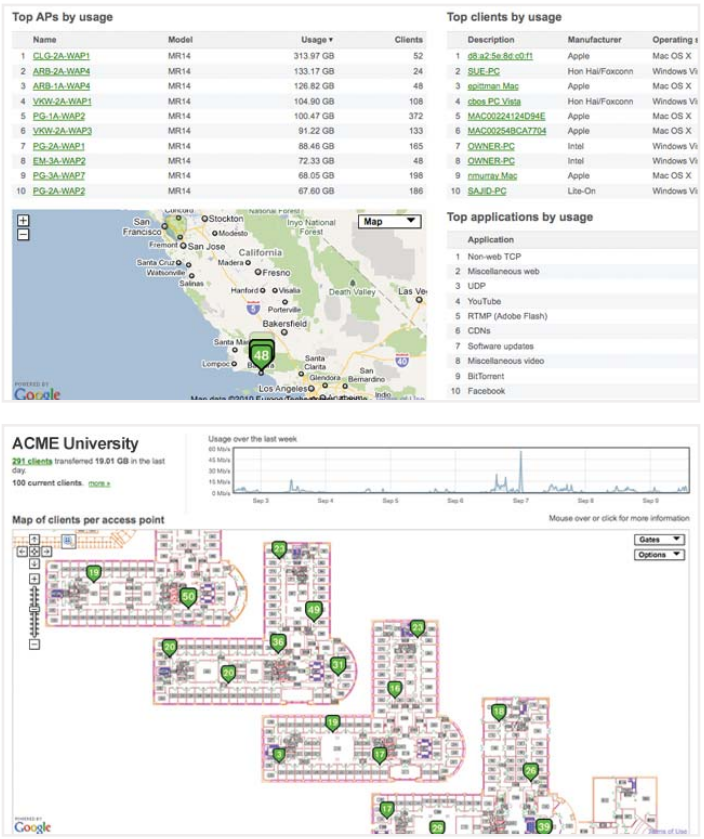
Meraki's 802.11a/b/g/n triple-, dual-, and single-radio access points enable administrators to cover large areas with wireless connectivity easily and effectively. With technologies such as mesh routing and dynamic channel optimization, Meraki access points offer excellent coverage in the most challenging RF environments.

Future-Proof Investment

The Meraki Enterprise Cloud Controller never has to be replaced. It is constantly updated with features and enhancements that provide value to a wireless network long after a hardware-based controller has reached its useful lifetime. Administrators can choose Meraki knowing that their investment is protected.

Simple Licensing

The Enterprise Cloud Controller license includes all new feature releases, software updates and support, making budgeting and license management simple.



Intuitive User Interface: The Meraki Cloud Controller offers a rich feature set with an intuitive user interface.

Top: *See bandwidth usage per user or device in real-time with different levels of historical zoom for better monitoring, troubleshooting, and reporting.*

Bottom: *Upload floorplans and custom maps into the Meraki Cloud Controller for precise AP visualization and monitoring.*

Lowest Total Cost of Ownership

With no need to purchase expensive WLAN controllers or separate licenses for new features, software maintenance and support, Meraki Enterprise networks offer the lowest TCO of any enterprise-class WLAN. Meraki's Enterprise Cloud Controller has all the features required for a large office deployment out of the box, and enterprise-class phone support and software maintenance are included at no additional cost.

Specifications

Platform
- Up to 16 Virtual APs (SSIDs) with independent configurations
- Up to 16 VLAN (802.1q) tags with SSID-to-VLAN mapping
- Bridge mode: Client IP addresses assigned by upstream DHCP server
- NAT mode: Client IP addresses assigned from private address pool
- Dynamic channel optimization
- Dynamic frequency selection (DFS)

Security
- WPA/WPA2-Personal (pre-shared key)
- WPA/WPA2-Enterprise (with 802.1x authentication)
- Supported 802.1x EAP methods:

EAP-TLS	PEAPv0/EAPMSCHAPv2
EAP-TTLS/MSCHAPv2	PEAPv1/EAP-GTC

- TKIP and AES encryption
- WEP
- Rogue AP detection with wired network identification
- Secure AP-to-Cloud Controller communication (SSL)

Access Policies
- RADIUS with failover and load balancing
- Meraki-hosted user database (integrated RADIUS server)
- MAC whitelisting/blacklisting
- Customizable captive portal / splash page
- Walled garden
- DNS-based content filtering
- Integrated LAN isolation (isolate guest traffic without VLANs)

Quality of Service
- 802.11e / WMM (EDCA and TXOP)
- WMM Power Save (U-APSD)
- Integrated bandwidth shaping

High Performance Mesh
- Zero-configuration mesh networking
- Automatic failover across heterogenous gateways
- Dynamic route selection with multi-radio support
- Secure AP-to-AP communication (AES)

Management
- Centralized administration of multiple networks
- Drill-down reporting (historical and real-time)
- Hero reports with scheduled e-mails
- Role-based administration (full and read-only privileges)
- Data export to XML
- Aerial Google Maps visualization
- Floor/building diagrams for interior visualization
- Remote diagnostics, performance, and logging tools
- Automatic e-mail alerts
- Online XML API

Scalability
- Max # APs per network: 2,500
- Max # networks per account: 1,000
- Max # user entries in Meraki-hosted user database: 65,000
- Max client throughput: AP-dependent (Cloud Controller is not in the data path)
- Repeater-to-gateway ratio in mesh: 5 to 1 recommended; 20 to 1 max

High Availability
- Redundant systems in 4 geographically distributed data centers
- Failover to hot standby within a data center

Support and Maintenance
- Enterprise license includes support and maintenance
- Enterprise-grade phone support
- Meraki Cloud Controller software updates
- Automatic firmware upgrades

Compatibility
- Compatible with all Meraki access points

Ordering Information
The Meraki Enterprise Cloud Controller is licensed per AP per year.

• LIC-ENT-1YR	Meraki Enterprise Cloud Controller, 1 Year
• LIC-ENT-3YR	Meraki Enterprise Cloud Controller, 3 Years
• LIC-ENT-5YR	Meraki Enterprise Cloud Controller, 5 Years

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