

Meraki Enterprise Cloud Controller

Centralized Management, Optimization, and Monitoring for Wireless LANs

The Meraki Enterprise Cloud Controller lets administrators build secure, scalable wireless networks quickly, easily, and at a disruptively low cost. It provides centralized management, mobility, and security across multiple access points and deployment sites.

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.

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 single-radio, multi-radio, and mixed-radio mesh networks.

Dynamic RF Optimization Adapt to changing interference conditions and utilize the maximum available wireless spectrum. System-wide channel optimization maximizes client performance and client density throughout the network.

Security

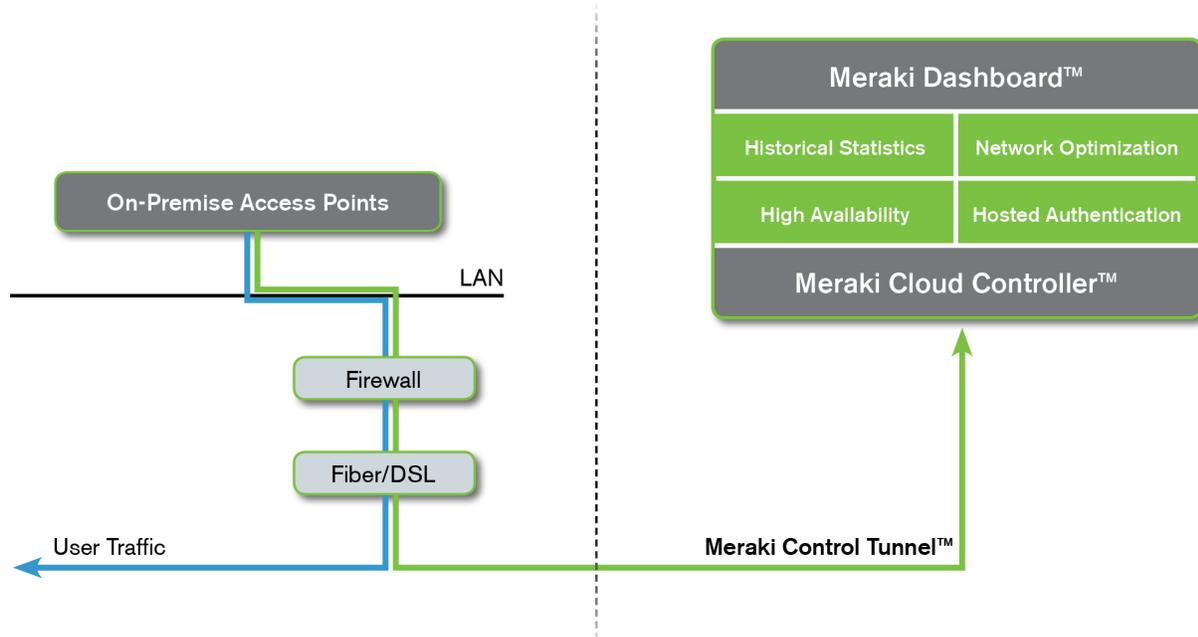
Virtual Network Isolation™ Operate multiple fully isolated virtual wireless networks, each with its own policies and VLAN-tagged traffic, on a single physical network.

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 (802.1x) authentication with Meraki's built-in hosted directory service, or integrate with existing RADIUS servers, such as Microsoft Active Directory.

Guest Access Provide temporary access to guests and vendors with a fully customizable landing page experience, without exposing the enterprise's internal network.





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

User Management

Per-User Traffic Policies Set bandwidth limits or block network usage, 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.

Centralized Management

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

Meraki Dashboard™ 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.

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 failover time for the Meraki Cloud Controller that is measured in seconds.

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

Priority Voice Support Provide mobile devices with enhanced call quality using 802.11e/WMM prioritized queueing.

Power Save Support Enable mobile devices such as phones, PDAs, and audio players to conserve battery power with 802.11e/WMM power save support.

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.

Over-the-Air Firmware Upgrades Stay up-to-date through upgrades that occur in the background, so that networks continue operating with minimal downtime.

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

Meraki Control Tunnel™ Meraki's secure network tunnel provides highly available networking configuration, statistics, and monitoring without any special configuration.

Benefits

No Expensive Hardware

Administrators no longer have to replace hardware-based WLAN controllers. Instead, Meraki's Enterprise Cloud Controller has all the features required for a large office deployment out of the box, and includes enterprise-class phone support and software maintenance.

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 through the Meraki Enterprise Cloud Controller right out of the box. A streamlined, intuitive web interface reduces upfront training and installation time, while reducing maintenance and troubleshooting time 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

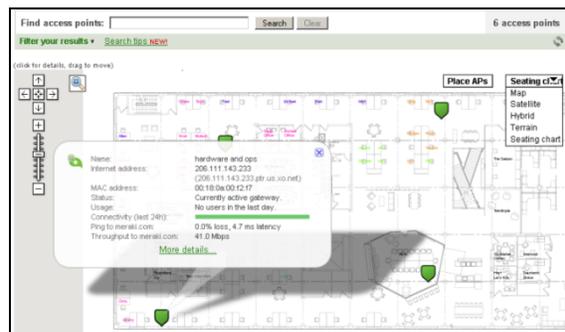
The Meraki Enterprise Cloud Controller provides true centralized management without any additional hardware. Centrally manage up to 1,000 wireless networks, each with up to 1,000 access points. Whether the networks are on multiple floors of a building, multiple buildings on a campus, or multiple campuses 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 single-, dual-, and multi-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 even 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.



Intuitive User Interface: The Meraki Cloud Controller offers a rich feature set with an intuitive user interface. Top: Upload floorplans and custom maps into the Meraki Cloud Controller for better AP visualization and monitoring. Bottom: Monitor bandwidth usage per user or device in real-time with different levels of historical zoom for better monitoring, troubleshooting and reporting.

Specifications

➤ Platform

- Up to 4 Virtual APs (SSIDs) with independent configurations
- Up to 4 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 (802.1x)
- Supported 802.1x EAP methods: EAP-TLS, PEAPv0/EAP-MSCHAPv2, EAP-TTLS/MSCHAPv2, PEAPv1/EAP-GTC
- TKIP and AES encryption
- WEP
- 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
- Internationalization (18 languages supported)
- 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 heterogeneous 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)
- 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 availability 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 3 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
- Hosted 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