



Eliminating the cost and complexity of hardware controllers with cloud-based centralized management

meraki

- Enterprise-class 802.11n wireless access points
- Centrally managed over the web
- Manages devices, applications, and users
- Easy to use, deploys in just 15 minutes

Enterprise WLAN: Meraki vs. Aruba



Meraki 802.11n APs managed over the web via Meraki's Enterprise Cloud Controller

- Centralized, network-wide management via cloud-based controller (no on-site controller hardware)
- Geographically redundant, highly available Cloud Controller
- ► User data does not flow through controller no end-user impact if connection to the cloud is lost
- Configure networks over the web without on-site IT

Meraki WLAN Product Line



Aruba 802.11n APs managed through on-site controllers and appliances.

- Site-wide management via hardware controller. Multi-site management with overlay appliance.
- Backup controller required for high availability
- Data flows through controller per-site or network-wide controller governs total network capacity
- Controller configuration requires trained, on-site staff



Meraki Cloud Controller, high performance indoor and rugged outdoor 802.11n access points up to 900 Mbps.

Aruba WLAN Product Line



Aruba controller, high performance indoor and rugged outdoor 802.11n access points up to 600 Mbps.



Meraki vs. Aruba: System Capabilities

	MERAKI	ARUBA
SCALABILITY	Expand coverage by simply adding APs — up to 10,000 per network. Cloud controller resources automatically scale to your network. No user traffic flows through the cloud, removing the bottleneck of a traditional controller.	Aruba controllers support a finite number of APs, so expanding coverage may require upgrading your controller. Controllers are a single point of failure and can be a perfor- mance bottleneck.
REDUNDANCY	Built-in redundancy: the Cloud Controller is hosted in multiple data centers around the world, providing automatic failover. Your network continues to function even if connection to the Cloud Controller is lost.	Purchase and configure additional controllers to achieve redundancy. For a multi-site network, duplicate controllers are required at each site to achieve full redundancy, adding significant expense and management overhead.
SPEED OF DEPLOYMENT	Meraki deployments take hours — not days or weeks. Configure your network policies in minutes, without training or certifications, through Meraki's intuitive dashboard. Plug and play APs then self-provision from the cloud.	Successful deployments often require weeks or months. Controller configuration requires specially trained, dedicated staff, while advertised "Zero touch AP installation" actually requires manual provisioning.
MANAGEMENT	Meraki provides powerful control through an intuitive web-based dashboard. Create multiple SSIDs, enable 802.1x, and configure VLAN tagging or band steering with a single click. Intelligent UI design with contextual help eliminates the need for dedicated staff.	Command-line and GUI interfaces require significant system expertise. For example, Aruba requires manual configuration of dozens of RF optimization parameters. Learning new commands means sifting through hundreds of pages of the product manual.
MULTI-SITE NETWORKS	Built-in multi-site management provides visibility and control over all of your networks and clients in one dashboard. Real-time web based troubleshooting tools enable fast remote helpdesk support without on-site IT.	Distributed networks require a controller at each site or slow and costly MPLS links that tunnel all traffic back to headquarters. Managing multi-controller networks requires additional software and hardware.
VISIBILITY & REPORTING	Event logs are searchable with a Google-like interface. View rich, auto-generated reports and network-wide event logs. Client fingerprinting lets you identify a client simply by typing a name, IP, or OS and hitting "Search".	Multi-step command line process to enable and then retrieve logged events. Client search based on MAC or IP address. Fingerprinting limited to subset of client OS types.
APPLICATION TRAFFIC SHAPING	Layer 7 traffic analysis reveals usage by device fingerprint (client name, OS, device type, and more), application, or application class. Prioritize business-critical application types. Limit undesirable or recreational traffic activity.	Configuration requires setting up protocols and ports for voice and video, assigning roles, firewall settings, and other parameters. Prioritization limited to voice and video. No application-specific de-prioritization or fingerprinting.
MAINTENANCE & UPGRADES	Support and maintenance included. Firmware upgrades and new features are automatically pushed to customer networks at no extra cost. Lifetime hardware warranty for indoor APs. 1-year hardware warranty for outdoor APs.	Buy separate support contracts for controller, licence, and AP. Feature/firmware updates require separate license. Upgrades and security patches must be installed manually. 1-year hardware/90-day software warranty.

Meraki Integrated Services: Traffic Shaping and NAC

Meraki's cloud-based system integrates features that increase network control and security for the new generation of open enterprise networks. Traditionally requiring point solutions, these features are included without adding cost or complexity:

• Meraki Layer-7 Application-Aware Traffic Shaping reveals precise application usage and lets administrators prioritize traffic accordingly, e.g. throttling P2P while prioritizing VoIP.

▶ Meraki NAC blocks clients with insufficient antivirus protection. Deployed with one click, Meraki NAC bolsters network security without hardware appliances, installed client software, or complex VLAN configurations. Aruba deployments must integrate third party products (e.g. from Palo Alto, Blue Coat, or Bradford Networks) to achieve similar functionality.





Meraki vs. Aruba: Teleworker VPN

Meraki and Aruba both offer Teleworker VPN solutions that enable teleworkers, executives, and small branch offices to access corporate network resources (PBX, file servers, etc.) from an internet-connected AP. Meraki's solution offers the following advantages:

> Zero-touch configuration: Simply plug in an AP and it automatically provisions from the cloud. Aruba APs require individual provisioning.

Edge-based policy enforcement: Meraki's NAC, stateful firewall, traffic shaping, and content filtering are applied at the AP. Aruba routes traffic back to the corporate network before applying policies, impacting network performance with undesired traffic.

• Virtual concentrator: Meraki's VPN concentrator is a VMware-based virtual appliance, eliminating added hardware at headquarters. Aruba requires APs to connect to a controller at headquarters.

> VPN capabilities are available with all Meraki AP models, without added licenses: Any Meraki AP can create a Teleworker VPN connection at no additional charge. Aruba's VPN solution requires an additional per-AP license.

Overlay Management Systems vs. Deep Management Integration

In 2008, Aruba acquired AirWave, a product designed to manage multi-vendor network deployments. Aruba offers AirWave as an overlay solution for managing multi-controller networks. To centrally manage multiple branches, AirWave must be deployed and integrated into an Aruba controller environment, with considerations made for scalability and fault tolerance. AirWave is a software system that runs on server hardware, requiring power, cooling, monitoring, software upgrades, and other ongoing maintenance.

In contrast, Meraki's solution was built from the ground up for cloud management. Multi-site networks are managed from a single pane of glass. Deeply integrated cloud-based tools, monitoring, and visibility provide seamless centralized management to networks of any size.

Enterprise Feature	Meraki	Aruba
WPA2-Enterprise with 802.1x Authentication	\checkmark	\checkmark
VLAN tagging, guest access	\checkmark	\checkmark
Stateful policy firewall	\checkmark	\checkmark
QoS for Voice, Video	\checkmark	\checkmark
Automatic RF optimization	\checkmark	\checkmark
Spectrum analysis	\checkmark	\checkmark
Mesh networking	\checkmark	\checkmark
Rogue AP Detection and location	\checkmark	\checkmark
Layer-7 traffic shaping and application firewall	\checkmark	
Built in Network Access Control (NAC)	\checkmark	
Integrated client location tracking	\checkmark	
Zero-configuration virtual branch networks	\checkmark	
Built-in multi-site management	\checkmark	
Google maps integration	\checkmark	

Westmont College expands coverage with fewer APs, reduces ongoing maintenance



FORRESTER CASE STUDY:

"Based on cost comparisons that Westmont conducted when considering the network rebuild, the existing network is anywhere from 25% to 45% less capital cost to implement."

-The All-Wireless Campus: A Westmont College Case Study

"Meraki is one of the best technology decisions l've made in over 30 years."

- Reed Sheard, CIO, Westmont College

- ▶ 1,100 students and 300 faculty on sunny Southern California campus need constant internet connectivity, indoors and out.
- Students were complaining about the poor coverage of the existing Aruba network.
- ▶ Westmont College replaced 272 Aruba access points, which covered only residences and dining areas, with 270 Meraki APs. The Meraki APs blanketed all 111 acres of the campus.
- Aruba required a dedicated staff member, who was repurposed after Meraki deployment.
- > Westmont's IT staff uses Meraki's Cloud Controller to troubleshoot and solve students' connectivity issues over the web, without specialized training.
- Over 90% of students use the network regularly, and most have discontinued use of wired ports.
- ▶ More than 1,500 clients access the network each day, transferring over 180 GB of data.

Meraki vs. Aruba: 5-Year Cost Comparison

	Aruba* (BASIC)	Aruba* (REDUNDANT, WITH FULL MANAGEMENT)	Meraki (Redundant, With Full Management)
Access Points	27,800	27,800	25,960
Controller	7,995	7,995	18,000
Redundant Controller	-	7,995	(incl.)
Software Licenses	7,320	8,320	-
Support and Maintenance	9,356	9,356	(incl.)
Aruba AirWave (for full management)	-	4,995	(full mgmt. incl)
Total Cost (USD)	\$60,516	\$78,461	\$43,960

Single site deployment with 40 APs

Ten site deployment with 10 APs at each site

	Aruba* (BASIC)	Aruba* (REDUNDANT, WITH FULL MANAGEMENT)	Meraki (Redundant, With Full Management)
Access Points	69,500	69,500	64,900
Controller	49,950	49,950	45,000
Redundant Controller	-	49,950	(incl.)
Software Licenses	10,500	21,000	-
Support and Maintenance	42,315	42,315	(incl.)
Aruba AirWave (for full management)	-	4,995	(full mgmt. incl)
Total Cost (USD)	\$172,265	\$237,710	\$109,900

* Aruba prices do not include dedicated staff, training, or management overhead.

All prices list, USD. Aruba prices assume Aruba AP-105 access points, MC-3400 controller, policy enforcement firewall, AirWave AWMS-50, and 5 year support licenses. Aruba prices do not include server hardware to run AirWave. Meraki prices assume Meraki MR16 access points and 5-year Cloud Controller Enterprise license. Meraki's cloud-managed solution requires no on-site controller and no per-feature licenses, and it includes maintenance, support, and lifetime hardware warranty.