MER-WLS - MERAKI WIRELESS, READY FOR THE ENTERPRISE V2.0

Course Code: 821658

This four-day, instructor-led course focuses on deploying Meraki Wireless networks, emphasizing hands-on experience with the Meraki Dashboard configured. The training is designed to impart in-depth knowledge and practical skills necessary for configuring, deploying, monitoring, and troubleshooting Meraki MR and Catalyst CW Wireless Access Point solutions tailored for government network requirements. Students will learn how to perform Site Surveys with Meraki AP and become familiar with Ekahau and Hamina and their uses.

Participants will configure Meraki SSIDs and 802.1x port configurations for wireless clients using ISE and Radius, ensuring secure and efficient network access. The course curriculum covers a broad range of topics, including heatmaps, site surveys, RF management, and licensing, catering to the specific needs of government networks. Attendees will explore advanced Meraki features such as 5 Gbps throughput, automatic RF optimization for signal quality improvement and interference reduction, and identity-based firewall configurations for enhanced network security.

By the conclusion of this course, participants will be well-equipped with the necessary knowledge and skills to ensure the reliability, security, and efficiency of networks using Cisco Meraki Wireless Networks. This includes a comprehensive understanding of how to design, implement, manage, and troubleshoot these networks effectively, making them invaluable assets to their respective departments.

What You'll Learn

- Understanding of Meraki Wireless Fundamental Concepts
- Dashboard Navigation and Configuration for Meraki Networks
- Detailed Site Surveys and AP Configuration
- Understanding Meraki MR Licensing
- Organizational and Network Settings Configuration on Meraki Networks
- Utilization of Templates and Group Policies
- MR Networks and Devices Management
- RF Design and Channel Management
- Identity-Based Firewall Configuration
- Layer 7 Application QoS
- Automatic RF Optimization

- Location and User Analytics
- Mission-Critical Traffic Prioritization
- WIFI6E Support
- Wireless Health
- Advanced Configuration and Troubleshooting Techniques

Who Needs to Attend

This course is tailored for network engineers, system administrators, IT professionals, and technical support staff working within or in collaboration with entities who are looking to deepen their understanding and expertise in managing and troubleshooting wireless networks using Meraki solutions. Participants will leave the course equipped with the knowledge and skills to ensure the reliability, security, and efficiency of wireless networks.

The course is highly recommended for:

- **Network Engineers:**
  - Professionals tasked with the design, implementation, and maintenance of network infrastructure. This includes managing both wireless and data communication systems, ensuring they meet the high standards required for operations.
- **System Administrators:**
  - Individuals responsible for the daily management and configuration of network systems. Their role is crucial in ensuring the reliable operation of Meraki Wireless services across various departments.
- **IT Professionals:**
  - This group includes a wide range of IT personnel working within agencies who require a robust understanding of secure and reliable Meraki Wireless network systems. Their work is critical in ensuring these networks comply with stringent standards and regulations.
- **Technical Support Staff:**
  - These are the frontline personnel who provide essential technical support for Meraki Wireless network systems within environments. Their expertise ensures that any issues are promptly resolved to maintain network integrity and security.
- **Cisco Certified Professionals:**
  - Individuals who have already achieved Cisco certifications and are looking to further their knowledge and expertise, specifically in Meraki Networks and Technologies. This course offers them an opportunity to specialize in Meraki solutions, enhancing their skill set in the context of network requirements.

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CLASSROOM LIVE	$3,895 USD	4 Day

Classroom Live Outline

Module 1: Introduction to Meraki

- Why Cisco Meraki?
- Meraki Product Overview
- Meraki Licensing and Support Overview

Module 2: Meraki Wireless APs and Mounts

- Meraki AP Features
- Meraki WIFI 5 Indoor AP Models
- Meraki WIFI 6 Indoor AP Models
- Meraki Wi-Fi 6E Indoor Portfolio
- Meraki Outdoor WIFI 5 AP Models
- Meraki Outdoor WIFI 6 AP Models
- Meraki Antennas, Power, Mounts, and Accessories

Module 3: Designing Meraki Wireless Architectures

- Wireless Standards
- Meraki RF WLAN Design
- Site Survey
- Site Survey Tools
- Mounting Aps Best Practices
- Meraki Design Principles
- Meraki Roaming Design
- Switch Design for Meraki Wireless Networks
- Designing Meraki Network Services
- Organization and Network Design
- Migrating Cisco DNA APs to Meraki Dashboard

Module 4: Configuring the Meraki Dashboard

- Meraki Dashboard, Organizations, and Networks
- Organizational - Wide Configure Settings
- Configuring Administrators

- Creating Networks and Managing Inventory
- Organization > Overview Page
- Configuring Network - Wide Settings
- Network - Wide Administrators & Users
- Network - Wide > Add Devices
- Configuring Location / Mapping Devices
- Configuration Templates
- Configuring Group Policies

Module 5: Deploying Meraki Wireless

- Meraki Dashboard, Organizations, and Networks
- Organizational-Wide Configure Settings
- Configuring Administrators, Licensing, Network, and Devices
- Managing Firmware
- Packet Captures
- Group Policy
- Configuring Location / Mapping Devices
- Configuring Meraki and Umbrella
- Configuring Templates
- SSID Configuration
- Splash Page Configuration
- Configuring SSID Availability
- Configuring Bluetooth Settings
- Configuring Port Profiles
- Configuring Wireless Security

Module 6: Meraki Wireless RF and Channel Management

- Meraki Cloud - Managed RF Design
- Wireless RF Radio Settings
- Wireless AIOPs
- Auto RF - AI-Powered RF Optimizations
- RX-SOP
- Roaming Analytics Dashboard
- AP Neighbors - Advanced RF Spectrum Visualization
- RF Spectrum

Module 7: Monitoring Meraki Wireless

- MSP Monitoring Meraki Wireless
- Monitoring Organization - Wide Wireless
- Monitoring Network - Wide Wireless
- Monitoring a Specific Wireless Client
- Monitoring Wireless Traffic Analytics
- Topology
- View Wireless Events in the Event Log
- Capturing Wireless Packets
- Mapping Wireless Devices on a Floor Plan
- Monitoring Specific Access Points

- Access Point Wireless Health Overview
- Wireless Access Points - List
- Wireless Health

Module 8: Meraki Wireless Troubleshooting

- Troubleshooting Overview of Meraki Wireless
- Troubleshooting Meraki Wireless Management Tunnels
- Help and Support
- Tools for Wireless Troubleshooting
- Wireless Experience
- Roaming Analytics Dashboard
- Troubleshoot Wi-Fi Connection Issue
- Troubleshooting Client Roaming
- Troubleshooting Slow Wi-Fi
- Troubleshoot AP Issues
- Proactive WLAN Monitoring
- AP Issues
- Client Connection Issues
- AI - Powered Root Cause Analysis
- Thousand Eyes

Module 9: Meraki Wireless APIs and Integrations

- Meraki API and Integration Overview
- Meraki API Technologies and Tools
- Meraki Dashboard API
- Using Postman with Meraki
- Meraki Dashboard API Python Library
- AsyncIO
- People Count using Meraki Wireless APIs
- Network as a Sensor
- Use Case - Pulling Statistics from Meraki Devices
- Meraki Tools
- Meraki Action Batches

Module 10: Cisco Spaces / Meraki Integration and Open Roaming

- Cisco Spaces
- Integrate Network Components
- Integrate Meraki Network
- Implement and Troubleshoot Smart Operations
- Implement and Troubleshoot Smart Workspaces
- Meraki OpenRoaming
- Designing Power efficient Meraki Wireless Networks

Classroom Live Labs

Lab Outline

Lab 1: Configuring the Organization
- Configure Organizational Settings
- Add All Devices to Organization
- Create Networks
- Manage Network-Wide Settings
- Create group Policies
- Manage Firmware Upgrades
- Create Templates
- Manage VLAN Templates
- Bind Templates to Networks

Lab 2: Meraki MR Wireless
- Configuring Meraki APs
  - Connecting APs to the Network
  - Configuring Basic information including Tags
- Configuring SSIDs
  - Provisioning SSIDs
  - Open with Splash Pages
    - Click-Through
    - Systems Manager Sign-in
    - Facebook Sign-in
    - Google Sign-in
    - SMS Authenticated
    - Billing Configuration for SSIDs
  - Using Preshared Keys with WPA2
  - Using WPA2-Enterprise SSIDs with 802.1X
    - Cisco ISE
  - MAC-based Access Control Filtered SSIDs
- Firewall & Traffic Shaping Configuration for Wireless
  - Block local network for Guests
  - Layer 3 Firewall Rules
  - Block Applications
  - Traffic Shaping Rules per SSID
  - Configuring Layer 3 Roaming
  - Configuring ISE Integration with Access Policies
  - Configuring Access Policies for Wireless
  - Configuring Wireless RF Radio Settings
    - Auto RF
    - Transmit Power Control
    - Channel Selection
    - Band Steering
    - Client Balancing
  - Configuring Bluetooth for Analytics
  - Guest Self-Registration
  - Configuring Splash Pages
  - Configuring Floor Plans

- Placing APs on the Floor Plans
- Configuring RF Channel and Power Settings
- Configure Air Marshall to Isolate Rogue APs and Clients
- Monitoring Meraki APs
  - Monitoring AP Status
  - Using Meraki Wireless Health
  - Monitoring Clients
  - Monitoring RF Metrics
  - Monitoring the RF Spectrum
  - Monitoring SSID Availability
- Trouble Shooting
  - Using Heatmaps to Troubleshoot RF Issues
  - Identify Problematic Areas
  - Signal Attenuation
  - Ping and Traceroute
  - Reboot Device
  - Blink LEDs
  - Throughput
  - Checking PCI Compliance
  - Using the Event Log for Troubleshooting

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Feb 23 - 26, 2026 | 9:00 AM - 5:00 PM CST

Apr 13 - 16, 2026 | 9:00 AM - 5:00 PM CST

Jun 8 - 11, 2026 | 9:00 AM - 5:00 PM CST

Aug 17 - 20, 2026 | 9:00 AM - 5:00 PM CST

Oct 12 - 15, 2026 | 9:00 AM - 5:00 PM CST

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PRIVATE GROUP TRAINING	3 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.