



Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

***WHERE GREAT TRAINING
HAPPENS EVERYDAY!***



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About this Class

This four-day, instructor-led course focuses on deploying Meraki Wireless networks within State and Federal Government sectors, emphasizing hands-on experience with the Meraki Dashboard configured for the specialized Meraki for Government Cloud. 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 government agencies or departments.

Course Duration

4 Days

Course Price

\$3,895.00

36 CLCs

Methods of Delivery

In-Person ILT

Virtual ILT

Onsite ILT

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How you will benefit

This class will help you:

- Equips students with essential skills for efficient administration of Meraki Wireless in government networks
- Comprehensive understanding of Meraki Wireless Fundamental Concepts

Why Attend with Current Technologies CLC

- Our Instructors are the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The job roles best suited to the material in this course are:

- Network Engineers
- System Administrators
- IT Professionals in Government Agencies
- Technical Support Staff
- Cisco Certified Professionals

Prerequisites

The knowledge and skills you are recommended to have before attending this training are:

- Basic Networking and Wireless Knowledge:
- Understanding of networking fundamentals, including IP addressing, routing, switching, and wireless networking basics.
- Experience with Government IT Environments:
- Understanding of government-specific compliance standards, security requirements, and IT infrastructure.
- Hands-on Experience with Wireless Network Devices:
- Prior experience in configuring, deploying, and troubleshooting wireless access points and associated network devices.

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

Objectives

After taking this course, you should be able to:

- Understanding of Meraki Wireless Fundamental Concepts
- Dashboard Navigation and Configuration for Government Networks
- Detailed Site Surveys and AP Configuration
- Understanding Meraki MR Licensing
- Organizational and Network Settings Configuration on Government Networks
- Utilization of Templates and Group Policies
- MR Networks and Devices Management on Government Networks
- 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
- Practical Labs and Exercises

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

Course Outline

Module 0: Introductions

Module 1: Introduction to Meraki for Government

- Cisco Meraki for Government
 - Why Cisco Meraki for Government?
 - Meraki Platform Names and Abbreviations
 - Key Relevant Government Technologies (1)
 - Meraki Cloud and Network Platforms
 - Meraki For Government Mission Statement
 - Meraki Differentiators for Government
 - Cisco Meraki for Government
 - Meraki Cloud Platform for Government
 - The Meraki Platform is a Catalyst for IT Transformation
 - Engine behind the Meraki Dashboard
 - Add Meraki to Your Government Network
 - Using Infrastructure Insights for Better Outcomes
 - True Zero-touch Provisioning Out of the Gate
 - User Data vs. Management Data
 - Secure, Reliable Connectivity Anywhere for Government
 - Lean Operations for Government
 - Meraki Sustainability for Government
 - Network Intelligence and Optimization for Government
 - The Meraki Full Stack
 - Simplifying IT with Cloud Management
 - Meraki Wireless - Secure, Scalable, Cloud Enterprise Wi-Fi
 - Cloud-Managed Networking Architecture
 - Meraki Compliance
 - Device Communication
 - Meraki Government Datacenter Access Rules
 - AI/ML Powered Networking
 - Government Cloud or Commercial Cloud
- Meraki for Government Product Overview
 - Meraki for Government Product Portfolio
 - Meraki Full Stack Architecture
 - MS Switch Models
 - Catalyst Meraki 9300 Series
 - Meraki Security & SD-WAN Portfolio
 - MG Meraki Cellular Gateways

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

Course Outline

Cont. Module 1

- Meraki for Government Support Overview
 - Migrating CW-AP Licensing to/from Meraki
 - MX Appliance Licensing
 - Meraki Support Model
 - Enterprise Support
 - Enterprise Support Best Practices
 - Meraki – Product End of Life
 - Warranty & Returns
- Return Policy and Requesting a RMA

Module 2: Meraki for Government Licensing

- Meraki for Government Licensing
- Meraki Licenses
- Out of Compliance - 30 Day Grace Period
- MX Appliance for Government Licensing
- Meraki Device Licensing Types
- Meraki Licensing Models
- Licensing Model Feature Comparison
- Meraki for Government Co-Termination Licensing Overview
 - Co-Termination Licensing
 - Frequent Questions about Co-Termination
 - Co-Term Licensing: Calculator (1)
 - Co-Term Licensing Documentation
- Co-Termination Licensing in the Dashboard
 - Co-Term – Organization > License Info
 - License Information – Co-Termination
 - Licensing Status and Compliance (1)
 - Add Licenses to Organization – Co-Termination
 - License History – Co-Termination (1)

Administering Meraki Wireless for Government v1.0

(MER-WLS-GOV)

Course Outline

Cont. Module 2

- Subscription Licensing Overview
 - Current Licensing Issues
 - Subscription Licensing: Simple and Flexible
 - Meraki Subscription (1)
 - Meraki Subscription SKUs
 - Network Out of Compliance
 - Disable Management Expected Behavior
 - Subscription Licensing Documentation
- Subscription Licensing In The Dashboard
 - Converting to Subscription Licensing
 - Organization > Configure > License Info (1)
 - Subscription & License Info Page
 - Claiming An Additional Subscription
 - Subscription & License Info (1)
 - Network Binding
 - Single Network Binding (1)
 - Bulk Network Binding (1)
 - Remove/Modify Subscription for a Network
 - Remove Subscription for a Network
 - Modify Subscription for a Network
 - Looking at a Subscription (1)
 - Looking at a Network (1)

Module 3: Meraki Wireless APs and Mounts for Government

- Meraki for Government AP Features
 - Catalyst 6E Access Points
 - Multi-Color LED Access Points
- Meraki for Government WIFI 6 Indoor AP Models
 - MR36 Indoor AP
 - MR36H Indoor AP
 - MR44 Indoor AP (M-Gig)
 - MR46 Indoor AP (M-Gig)
 - MR46E Indoor AP (M-Gig)
 - MR56 Indoor AP (M-Gig)

Administering Meraki Wireless for Government v1.0

(MER-WLS-GOV)

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Cont. Module 3

- Meraki for Government Wi-Fi 6E Indoor Portfolio
 - Wi-Fi 6E Access Points
 - CW9163E Outdoor Wi-Fi 6E AP
 - MR57 Indoor AP (M-Gig)
 - Catalyst Access Points
 - Cisco Catalyst 916x Wi-Fi 6E Access Points
 - Cisco Catalyst Wireless 6E Access Points
 - AP Environmental Sensors
 - Cisco Catalyst CW9166 Access Point
 - Catalyst 9166D1 Access Point
 - Cisco Catalyst CW9166l Antenna Type and Placement
 - Cisco Catalyst CW9164 Access Point
 - Cisco Catalyst CW9162 Access Point
 - Cisco Catalyst CW9162l Antenna Placement
 - Catalyst CW9166i/9164i/9162i Mechanical Design
 - Catalyst CW9166i/9164i/9162i Wiring Area Comparison
 - Catalyst CW9166i/64i/62i Ports
 - Catalyst CW9162i Dimensions
 - Catalyst CW Bracket and Color
- Meraki for Government Outdoor WIFI 6 AP Models
 - Outdoor AP IP (Ingress Protection) Ratings
 - MR Access Point Models Outdoor
 - MR76 Outdoor AP
 - MR86 Outdoor AP
- Meraki Antennas, Power, Mounts, and Accessories
 - Directional Antennas
 - External Antennas – Indoor APs
 - External Antennas for Outdoor/Ruggedized Aps
 - AP Power Options
 - AccelTex Enclosures, Mounts & Skins
 - Ventev / Tessco Solar and AP Enclosures
 - Oberon Solutions

Module 4: Designing Meraki Wireless Architectures for Government Networks

- Wireless Standards
- Meraki RF WLAN Design
- Site Survey
- Site Survey Tools
- Mounting Aps Best Practices

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

Course Outline

Cont. Module 4

- Meraki Design Principles
- Meraki Roaming Design
- Switch Design for Meraki Wireless Networks
- Designing Meraki Network Services
- Organization and Network Design
- Organization and Network Design

Module 5: Configuring the Meraki Dashboard for Government Networks

- Meraki Dashboard, Organizations, and Networks
- Organizational - Wide Configure Settings
- Configuring Administrators
- Creating Networks & Managing Inventory
- Configuring Network-Wide Settings
- Network-Wide Administrators & Users
- Network-Wide > Add Devices
- Configuring Location / Mapping Devices

Module 6: Deploying Meraki Wireless for Government Networks

- Configuring the Dashboard for Wireless
- Managing Firmware
- Configuring Templates
- Group Policy
- SSID Configuration with Access Control
- Per SSID - Firewall & Traffic Shaping
- Splash Page Configuration
- Configuring SSID Availability
- Configuring Bluetooth Settings
- Configuring Port Profiles
- Configuring Wireless Security

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

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Module 7: Meraki Wireless RF And Channel Management for Government Networks

- Meraki Cloud - Managed RF Design
- Wireless RF Radio Settings
- Wireless AIOs
- Auto RF - AI-Powered RF Optimizations
- RX-SOP
- Roaming Analytics Dashboard
- RF Spectrum

Module 8: Monitoring Meraki Wireless for Government Networks

- Meraki Status Page
- Monitoring Administrators, Licensing, Inventory, and Firmware
- Monitoring Wireless from the Organization
- Configure and Monitor Alerts
- Monitoring Network-Wide Wireless
- Monitoring a Specific Wireless Client
- Wireless Traffic Analytics & Topology
- Packet Captures
- View Wireless Events in the Event Log
- Viewing Floor Plans
- Monitoring Specific Access Points
- Access Point Wireless Health Overview
- Wireless Access Points – List
- Wireless Access Points – Health
- Wireless Access Points – Map, Connection Log, and Timeline
- Monitoring SSIDs and Bluetooth Clients

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

Course Outline

Module 9: 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
- AP Issues
- Client Connection Issues
- AI - Powered Root Cause Analysis
- Proactive Alerts
- Thousand Eyes

Module 10: Meraki Wireless APIs and Integrations for Government

- 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
- Use Case - Pulling Statistics from Meraki Devices
- Meraki Tools
- Meraki Action Batches

Administering Meraki Wireless for Government v1.0 (MER-WLS-GOV)

Course Outline

Module 11: Meraki IPv6 for Government

- Meraki IPv6 for Government Networks Overview
- IPv6 Design & Deployment
- Meraki Switch IPv6 Configuration
- IPv6 Security
- Monitoring Meraki IPv6 Switched Networks
- Troubleshooting Meraki IPv6 Switched Networks