Current Technologies
Computer Learning Centers

+1 (219) 764-3800
6210 Central Ave, Portage IN
sales@ctclc.com
www.ctclc.com

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# Administering and Troubleshooting Meraki Full Stack Technologies (MER-FS-ADMIN)

## Administering and Troubleshooting Meraki Full Stack Technologies (MER-FS-ADMIN)

This five-day instructor-led Hands-on Meraki Full Stack Course covers MX SDWAN/Security, Meraki and Catalyst Switches, Meraki and Catalyst Access Points, Meraki Smart Camera, and Meraki Sensors. Students learn how to deploy, manage, and secure a network infrastructure using Cisco Meraki's integrated Full Stack technologies. This extensive training program addresses the specific challenges and compliance standards administrators face, ensuring that participants can build and maintain a secure, efficient, and resilient network environment.

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 MX Security Appliances, MS and Cisco Catalyst switches, and 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 agencies or departments.

**Course Duration**

5 days

**Course Price**

$4,295.00 or 43 CLCs

**Methods of Delivery**

- Instructor Led
- Virtual ILT
- On-Site

### Why Attend with Current Technologies CLC

- Our Instructors are in 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 primary audience for this course is as follows:

- Network Engineers
- System Administrators:
- IT Professionals
- Technical Support Staff:
- Cisco Certified Professionals

### Module 1: Introduction to Meraki

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

### Module 2: Meraki Licensing

- Meraki Licensing Overview
- Co-Termination Licensing Overview
- Co-Term Licensing in the Dashboard
- Per Device Licensing (PDL) Overview
- PDL in the Dashboard
- Subscription Licensing Overview
- Subscription Licensing in the Dashboard

- Enterprise Agreements

**Module 3: Configuring the Meraki Dashboard**

- Meraki Dashboard, Organizations, and Networks
- Meraki Help and Support Menu
- Organizational-Wide Configure Settings
- Organization > Integrations
- API & Webhooks
- Configuration Sync
- Configuring Administrators
- Creating Networks & Managing Inventory
- Organization > Early Access
- Organization > Overview Page
- Login Attempts
- VPN Status
- Manage Firmware
- Summary Reports
- Organization Summary
- Security Center
- Configuring Network-Wide Settings
- Network-Wide > Add Devices
- Monitoring Clients
- Group Policy
- Configuring Location / Mapping Devices
- Configuring Templates
- Meraki RADIUS, ISE & Adaptive Policy Overview
- Cisco Umbrella and Secure Access DNS
- Meraki App

**Module 4: Meraki MX Overview**

- MX Models & Features
- Cellular Capabilities
- Local Status Page
- Initial Setup using the Appliance Status Page
- Addressing & VLANS
- DHCP
- Access Control
- Splash Pages
- Teleworker VPN With MX & MR
- Security Introduction
- Firewall Configuration
- Threat Protection
- Content Filtering
- Meraki SD-WAN with Site-to-Site VPNs
- Configuring Meraki SD-WAN
- Monitor Site-to-Site VPNs
- Meraki SD-WAN & Traffic Shaping
- Routing
- Client VPN

- Active Directory

**Module 5: Meraki Switch Overview**

- Meraki Switch Overview
- Meraki Switching Portfolio
- Cloud-Managed Catalyst Families
- Legacy Meraki MS Switches
- Basic Switch Configuration
- Provisioning Switch Stacks
- Meraki Switch Settings
- Configuring Switch Ports
- Link Aggregation
- Mirroring Switch Ports
- DHCP Server Status
- Routing & DHCP
- Meraki Switch Multicast Configuration
- Meraki MS Warm Spare VRRP
- Meraki Switch OSPF
- Meraki Switch Access Control Lists
- Meraki Switch Access Policies (802.1X)
- Meraki Switch SmartPorts
- Meraki Switch Port Schedules
- Meraki Switch Staged Upgrades
- VLAN Profiles

**Module 6: Meraki Wireless APs**

- Wi-Fi Standards & Meraki AP Features
- Meraki WIFI 6E Portfolio
- Meraki WIFI 7 Portfolio
- Meraki Device Accessories
- Wireless Design
- Wireless Configuration
- SSID Configuration with Access Control
- Per SSID - Firewall & Traffic Shaping
- Splash Page Configuration
- Configuring SSID Availability
- Configuring Bluetooth Settings
- Configuring Port Profiles
- Wireless RF Radio Settings
- RF Spectrum
- Wireless Threats & Air Marshal
- Location Heatmap
- PCI Report
- Location Analytics
- Access Point Assurance Overview

**Module 7: Meraki Insight**

- Meraki Insight Introduction
- Meraki Insight Licensing

- Meraki Insight Web App Health
- Meraki Insight WAN Health
- Meraki Insight VoIP Health
- MX Thousand Eyes Integration

**Module 8: Meraki Gateways MG**

- Wireless WAN Capabilities
- Cellular Solutions & MG Portfolio
- MG Design
- MG Appliance Page
- MG Settings

**Module 9: Meraki Troubleshooting Overview**

- Troubleshooting Methodology
- Meraki Help and Support
- Configure and Monitor Alerts
- Change Log and Event Log
- Meraki Packet Captures
- Client Troubleshooting
- Meraki MX Troubleshooting
- Meraki MX Tools Tab
- Meraki MS Troubleshooting
- Meraki MS Tools Tab
- Meraki MR Troubleshooting
- Meraki MR Tools Tab

**Module 10: Introduction to Meraki MV Cameras**

- MV Security Cameras Introduction & Features
- MV Camera Models
- Monitor > Cameras
- Basic Camera Configuration
- MV Camera Profiles
- MV Camera Intelligence Training
- MV Camera - Video Settings
- Viewing Analytics
- MV Video Access
- MV Export
- MV Cameras APIs
- Meraki MV Viewing Applications
- Viewing Meraki MV Video
- Meraki MV Video Wall
- Meraki Vision Portal

**Module 11: Meraki Sensors**

- What is – Meraki Sensors?
- MQTT (Message Queuing Transmit Telemetry) – The IOT Protocol

**LAB OUTLINE**

Lab 1-1: Configuring the Meraki Organization

Lab 1-2: Configuring the Meraki Networks

Lab 1-3: Creating Meraki Configuration Templates & Configuring Network-Wide Settings

Lab 1-4: Creating Meraki Group Policies

Lab 1-5: Basic Configuration of HQ Devices

Lab 1-6: Basic Configuration of DC Devices

Lab 1-7: Basic Configuration of Branch 1 Devices

Lab 1-8: Basic Configuration of Branch 2 Devices

Lab 1-9: Network Topology

Lab 2-1: Configuration of HQ MX Appliance

Lab 2-2: DHCP Configuration

Lab 2-3: Firewall Configuration

Lab 2-4: Site-to-Site VPN Configuration

Lab 2-5: Meraki MX Routing

Lab 2-6: Client VPN Configuration

Lab 2-7: Active Directory Authentication

Lab 2-8: SD-WAN & Traffic Shaping

Lab 2-9: Threat Protection

Lab 2-10: Content Filtering

Lab 2-11: MX/Z Monitoring and Troubleshooting

Lab 3-1: Configuring the Meraki Switching

Lab 3-2: Configuring Switch Ports

Lab 3-3: Configuring Switch port Captures

Lab 4-1: Monitoring and Troubleshooting

Lab 5-1: Meraki Wireless Basics

Lab 5-2: Meraki Wireless Radio Settings

Lab 5-3: Configure the Map & Floor Plans

Lab 5-4: Configure and Manage Air Marshall

Lab 5-5: Configure and Manage RF Spectrum

Lab 5-6: Monitoring and Troubleshooting Meraki Device and Clients

Lab 5-7: Meraki Wi-Fi 6E Wireless Basics

Lab 5-8: Meraki Wi-Fi 6E Wireless Radio Settings

Lab 5-9: Configure and Manage Wi-Fi 6E RF Spectrum

Lab 6-1: Configuring the Meraki MV Network-Wide Setting

Lab 6-2: Explore the cameras tab

Lab 6-3 Meraki Vision Portal

Bonus Lab: Using Meraki APIs for Configuration and Monitoring switches and Aps

Optional Lab: Systems Manager