

Administering Meraki MS / Catalyst Switches (MER-SWITCH)

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In this Administering Meraki MS / Catalyst Switches 4-day Cisco Official course provides a comprehensive, end-to-end overview of Cisco Meraki switching and Catalyst integration, guiding learners from foundational Meraki concepts through advanced configuration, monitoring, security, and automation. Participants begin by understanding the value of Cisco Meraki, its product portfolio, and support model, followed by a detailed examination of Meraki and Catalyst licensing options, including co-termination, per-device, subscription licensing, and migration from Cisco DNA licensing into the Meraki Dashboard. The curriculum then explores the full Meraki switching portfolio, including Layer 2 and Layer 3 access switches, aggregation switches, and supported Catalyst platforms, along with power, accessories, and deployment considerations.

As the course progresses, learners gain hands-on experience configuring and operating switches through the Meraki Dashboard, covering organizational and network-wide settings, administrator roles, inventory management, templates, group policies, switch provisioning, firmware management, staged upgrades, port configuration, link aggregation, and traffic mirroring. Routing and multicast topics are addressed in depth, including static routing, VRRP warm spare configurations, Layer 3 switching, and OSPF, ensuring students can design resilient and scalable wired networks. Dedicated modules focus on monitoring and managing Catalyst switches in both cloud-monitoring and fully managed modes, providing visibility into topology, traffic, applications, and switch health from a unified dashboard.

The course further emphasizes security, identity, and operational excellence through coverage of switch security features, port access control, segmentation using group policy ACLs, and deep integration with Cisco Identity Services Engine (ISE), RADIUS, and Meraki Adaptive Policy. Advanced topics include IPv6 design and deployment, comprehensive monitoring of switches and clients, structured troubleshooting workflows using logs, packet captures, alerts, and analysis tools, and automation through Meraki APIs and action batches. Through practical labs and real-world scenarios, students develop the skills required to design, secure, operate, troubleshoot, and automate Cisco Meraki and Catalyst switching environments at enterprise scale.

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

Course Duration

4 days

Course Price

\$3,895.00 or 38 CLCs

Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

Prerequisites

Knowledge of Cisco Meraki Products

Module 1: Introduction to Meraki

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

Module 2: Meraki MS / Catalyst Licensing

- Meraki Licensing Overview
- Co-Termination Licensing Overview
- Co-Termination Licensing in the Dashboard
- Per Device Licensing (PDL) Overview
- PDL in the Dashboard
- Subscription Licensing Overview
- Subscription Licensing in the Dashboard
- Catalyst Licensing for the Meraki
- Migrating DNA Licensing to Meraki Dashboard

Module 3: Meraki Switches

- Meraki Layer 2 Access Switches
- Meraki Layer 3 Access Switches
- Meraki Aggregation Switches
- Catalyst Switches
- Power and Accessories

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: Configuring Meraki MS Switches

- Basic Switch Configuration
- Provisioning Switch Stacks
- Meraki MS Switch Settings
- DHCP Server Status
- Meraki MS - Port Schedules
- Local Status Page
- Manage MS Firmware
- Manage MS Staged Upgrades
- Configuring Switch Ports
- Link Aggregation
- Mirroring Switch Ports

Module 6: Meraki MS Routing and Multicast

- Meraki Layer 2 vs Layer 3
- Static Routes
- Meraki Switch Warm Spare - Virtual Router Redundancy Protocol (VRRP)
- Meraki Switch Routing
- Meraki MS - Open Shortest Path First (OSPF)

Module 7: Monitoring Catalyst Switches in the Meraki Dashboard

- Monitoring Catalyst Switches
- Supported Catalyst Switches
- Cloud Monitoring for Catalyst Onboarding
- Cloud Monitoring for Catalyst Licensing
- Cloud - Based Monitoring
 - View Network Topology
 - Track Clients and Traffic
 - Monitor Switch Status
 - Troubleshoot Connections
 - Inspect Port Details
 - Application Statistics

Module 8: Managing Catalyst Switches in the Meraki Dashboard

- Managing Catalyst Switches
- Supported Catalyst Switches
- Migrating to Meraki - Managed Mode
- Register the Switch with the Meraki Dashboard
- Managed Catalyst Switch Meraki Feature Support
- Managing Catalyst Switches in the Dashboard

Module 9: Meraki Switch Security

- Access Control Lists
- Securing Switch Ports
- SecurePort Switch Ports for MR Access Points
- Port Isolation
- Enforce Segmentation with Group Policy ACL

Module 10: Meraki Authentication ISE and Radius

- Managing Users
- Access Control
- Meraki Integration with Cisco Identity Services Engine (ISE)
- Meraki 802.1x Radius Integration

Module 11: Meraki Adaptive Policy

- Meraki Switches Supported Models
- Adaptive Policy Architecture
 - Identity Classification and Propagation
 - Security Policy Definition
 - Policy Deployment and Orchestration
- Configuration
 - Adaptive Policy SGT Propagation Configuration
 - Static Assignment of Adaptive Policy Group by Switchport
 - RADIUS - Based Assignment of an Adaptive Policy Group
 - Configure Access Policy on Switchports
 - Testing and Validation

Module 12: Meraki IPv6 Configuration

- Meraki IPv6 Overview
- Meraki IPv6 Features on Meraki
- Meraki IPv6 Dual Stack
- IPv6 DHCP and Addressing
- IPv6 Security and ACLs
- IPv6 Management Protocols

Module 13: Monitoring Switches and Clients

- Monitoring Switch Ports
- Meraki Health
- Switch Traffic Analytics
- Switch Topology
- Monitoring Wired Clients

Module 14: Troubleshooting Switches and Clients

- Troubleshooting Clients Connections
- Troubleshooting Switch Connectivity
- Switch Event Logs
- Capturing Packets in a Switch
- Configuring Switch Alerts
- Switch Tools
- VLAN Mismatch Troubleshooting
- Use Wireshark to Decode Port Captures

Module 15: Meraki Switch APIs

- Meraki API and Integration Overview
- Meraki API Technologies and Tools
- Meraki Dashboard API
- Using Postman with Meraki
- Meraki Dashboard API Python Library
- Use Case - Pulling Statistics from Meraki Devices
- Meraki Tools
- Meraki Action Batches