

Engineering Cisco Meraki Solutions • ECMS

DURATION: 4 DAYS

PRICE: USD 3795

CLCs: 38

CE: 24

COURSE CODE: ECMS | **FORMAT:** Lecture & Lab

COURSE DESCRIPTION

The Engineering Cisco Meraki Solutions (ECMS) training helps you gain the core knowledge and skills needed to deploy, plan, design, implement, and operate complex Cisco Meraki solutions. This training combines Engineering Cisco Meraki Solutions Part 1 and 2 trainings. This training helps prepare you for roles focused on implementing, securing, and managing Cisco® Meraki™ based networks from a centralized dashboard. Topics covered include Cisco Meraki's cloud-based solutions, understanding of network security protocols, design of scalable architectures, and application of troubleshooting strategies.

This training prepares you for the Cisco Meraki Solutions Specialist (500-220 ECMS) v1.0 exam. If passed, you earn the Cisco Meraki Solutions Specialist certification.

HOW YOU'LL BENEFIT

This training will help you:

- Gain a comprehensive understanding

of the Cisco Meraki platform

- Develop expertise in designing, implementing, and securing Cisco Meraki networks
- Operate and manage networks using Cisco Meraki's cloud-based tools and features
- Apply advanced monitoring and troubleshooting techniques
- Prepare for the 500-220 ECMS v1.0 exam
- Earn 24 CE credits towards recertification

WHO SHOULD ENROLL

This training is designed for anyone seeking the Cisco Meraki Solution Specialist certification. The training provides foundational knowledge and skills to engineer Cisco Meraki solutions, including cloud management, design, implementation, monitoring, troubleshooting, and the comprehensive features of the Cisco Meraki product suite.

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

- Consulting Systems Engineers

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- Deployment Engineers
- Network Administrators
- Network Engineers
- Network Managers
- Site Reliability Engineers
- Systems Engineers
- Technical Solutions Architects
- Wireless Design Engineers
- Wireless Engineers
- Sales Engineers
- Account Managers

WHAT TO EXPECT IN THE EXAM

Cisco Meraki Solutions Specialist (ECMS 500-220) is a 90-minute exam associated with the Cisco Meraki Solutions Specialist certification.

The exam tests your knowledge and skills to engineer Meraki solutions, including:

- Cloud management
- Design
- Implementing
- Monitoring
- Troubleshooting

COURSE OBJECTIVES

- Describe Cisco Meraki cloud architecture, administration, and licensing
- Describe the hardware and features of Cisco Meraki product families
- Describe best practices for troubleshooting and when to contact Cisco Meraki support
- Plan new Cisco Meraki architectures and expand existing deployments
- Design the network for scalable management and high availability
- Describe how to automate and scale Cisco Meraki deployments with dashboard tools

- Use dynamic routing protocols to expand networks and improve wide-area network (WAN) performance
- Describe proper quality of service (QoS), policy, and performance-based routing configurations across a Cisco Meraki network and WAN optimization through traffic shaping
- Describe virtual private network (VPN) and WAN topologies and how to integrate them
- Secure, expand, and shape the network
- Implement switched network concepts and practices, and configure guest networks
- Implement wireless configuration practices and concepts
- Describe endpoint management concepts and practices using Cisco Meraki Systems Manager
- Describe physical security concepts and practices
- Gain network insight by monitoring applications
- Describe how to prepare monitoring, logging, and alerting services
- Set up reporting and auditing capabilities in the Cisco Meraki dashboard
- Monitor and troubleshoot issues using Cisco Meraki tools

COURSE PREREQUISITES

Before starting this offering, you should possess a Cisco Certified Networking Associate (CCNA) certification or equivalent proficiency in the following areas:

General Networking

- Design, deploy, scale, and manage enterprise networks, IPsec, and VPN technologies
- Implement hierarchical network segmentation (access, distribution, and core layers)
- Apply IP addressing and subnetting schemas for LANs

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- Utilize network authentication, authorization, and accounting (AAA) services
- Configure dynamic routing protocols, specifically OSPF and BGP
- Manage wired and wireless QoS mechanisms and packet queue operations
- Perform threat modeling to identify, analyze, and mitigate cybersecurity risks
- Apply network security controls, management best practices, and data security standards
- Master RF concepts, design principles, and 802.11 wireless standards
- Secure wireless environments using 802.1x, WIDS, and WIPS
- Monitor network health using SNMP, syslog, and webhooks
- Leverage APIs, REST, and JSON for network automation

Cisco Meraki Knowledge

- Explain Meraki dashboard architecture, cloud structure, and administrative privileges
- Deploy MX security features, including IDS/IPS, AMP, and Layer 3/7 firewall rules
- Implement Auto VPN for SD-WAN environments
- Configure MS switches via the dashboard virtual stack interface
- Architect cloud-based WLANs with Layer 7 traffic shaping and guest authentication
- Manage device profile containerization using the Cisco Meraki Systems Manager
- Configure MV security cameras and manage video retention settings
- Troubleshoot device and application performance using Meraki dashboard live tools

Recommended Learning Offerings

- Implementing and Administering Cisco Solutions (CCNA)
- Implementing and Operating Cisco Enterprise

Network Core Technologies (ENCOR)

COURSE OUTLINE

- Introducing the Cloud and the Cisco Meraki Dashboard
- Introducing Cisco Meraki Products and Administration
- Introducing Cisco Meraki Troubleshooting
- Planning New Cisco Meraki Architectures and Expanding Existing Deployment
- Designing for Scalable Management and High Availability
- Automating and Scaling Cisco Meraki Deployments
- Designing Routing on the Cisco Meraki Platform
- Introducing QoS and Traffic Shaping Design
- Building VPN and WAN Topologies
- Securing, Expanding, and Shaping the Network
- Introducing Switched Network Concepts and Practices
- Implementing Wireless Configuration Practices and Concepts
- Introducing Endpoint Management Concepts and Practices
- Introducing Physical Security Concepts and Practices
- Gaining Network Insight by Monitoring Applications
- Preparing, Monitoring, Logging, and Alerting Services
- Setting Up Reporting and Auditing Capabilities in the Cisco Meraki Dashboard
- Gaining Visibility and Resolving Issues Using Cisco Meraki Tools

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LAB OUTLINE

- Configure the Cisco Meraki Dashboard
- Enable Advanced Features and Optimize Networking
- Troubleshoot the Network Using the Cisco Meraki Dashboard
- Configure Tags, Link Aggregation, Port Mirroring, and High-Density SSIDs
- Configure Routing on the Cisco Meraki Platform
- Configure QoS, Traffic Shaping, and Load Balancing
- Configure Network Security
- Configure Access Policies and Wireless Guest Access
- Configure SSIDs, RF Profiles, and Air Marshal
- Implement Endpoint Management
- Deploy and Configure Physical Security Devices
- Enable Alerts and Configure Monitoring and Reporting
- Troubleshoot a Cisco Meraki Network

Instructor Led Training

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