Engineering Cisco Meraki Solutions (ECMS)

What you'll learn in this course

The Engineering Cisco Meraki Solutions (ECMS) 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 earns you 24 Continuing Education (CE) credits towards recertification.

This course helps prepare you to take the exam:

- 500-220 ECMS Exam: Cisco Meraki Solutions Specialist

Course duration

- Instructor-led training: 4 days in the classroom
- Virtual instructor-led training: 4 days of web-based classes

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
- Earn 24 credits towards recertification

What to expect in the exam

The ECMS v2.2 exam certifies your knowledge and skills in designing, implementing, and managing networks using the Cisco Meraki platform, as well as your understanding of network security protocols, and troubleshooting strategies.

Technology areas

Networking

Course details

Objectives

- Describe the process of planning new Cisco Meraki architectures and expanding existing deployments.
- Design networks for scalable management and high availability.
- Implement dynamic routing protocols to expand networks and improve WAN performance.
- Configure Quality of Service (QoS), policy, and performance-based routing configurations across a Cisco Meraki network.
- Optimize WAN performance through traffic shaping and WAN optimization techniques.
- Deploy secure multi-cloud solutions using the Cisco Meraki platform.
- Implement network security protocols and access control measures.
- Configure and troubleshoot wireless networks using Cisco Meraki wireless solutions.
- Utilize Cisco Meraki Dashboard tools to monitor and troubleshoot network behavior.
- Design and implement VPN and WAN topologies using Cisco Meraki solutions.
- Automate and scale Cisco Meraki deployments with dashboard tools.
- Describe best practices for network monitoring, logging, and alerting in a Cisco Meraki environment.
- Implement physical security measures and devices using Cisco Meraki solutions.
- Describe endpoint management concepts and practices within a Cisco Meraki network.
- Customize dashboards and alerts for effective network management.
- Generate comprehensive reports on network performance and security.
- Apply troubleshooting techniques to find and resolve network issues promptly.

Recommended knowledge and training

Before taking this offering, you should have earned a CCNA certification or be familiar with:

- Basic network fundamentals and building simple LANs

Who should enroll

- Network Administrators
- Systems Engineer
- Network Manager
- Site Reliability Engineer
- Consulting Systems Engineer
- Deployment Engineer
- Network Engineer
- Technical Solutions Architect
- Wireless Design Engineer
- Wireless Engineer

- Basic network fundamentals, including building simple LANs, IP addressing, and subnetting

- Routing and switching fundamentals
- Basic wireless networking concepts and terminology
- Strong fundamental knowledge of IP addressing, subnetting, and dynamic routing protocols (OSPF and BGP)
- Understanding of wired and wireless Quality of Service (QoS) mechanisms, IPsec VPN technologies, and network security controls
- Familiarity with RF design principles, wireless security best practices, and standard logging/monitoring protocols (SNMP, syslog, webhooks)
- Basic knowledge of APIs and related languages/formats (REST, JSON)

The following recommended Cisco offerings may help you meet these prerequisites:

- 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

How to enroll

To enroll in the ECMS course or explore our larger catalog of courses on Cisco Digital Learning, contact us at <training@fastlane-mea.com>

Lab Outline

- Configuring the Cisco Meraki Dashboard
- Enable advanced features and optimize networking
- Troubleshooting the network using the Cisco Meraki Dashboard
- Configure tags, links 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
- Enable reporting and auditing, and manage firmware
- Troubleshoot a Cisco Meraki network