# Engineering Cisco Meraki Solutions 2

**Cursusduur: 3 Dagen        Cursuscode: ECMS2        Version: 2.0        Trainingsmethode: Virtual Learning**

## Beschrijving:

Engineering Cisco Meraki Solutions Part 2 (ECMS2)  elevates your knowledge of Cisco® Meraki™ technology suite. In this advanced technical training course, you'll learn how to plan for network deployments and integrations using the Cisco Meraki platform. Through practical hands-on instruction and experiences, you will learn how to operate Meraki networks and troubleshoot complex network incidents using the Meraki Dashboard and analytics. You will also learn how to design Meraki architectures for redundancy, high-density, and scalability by implementing comprehensive Meraki product features to meet design objectives. This course is the second of two courses that prepares you for Cisco Meraki certification.

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Virtueel en Klassikaal™

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## Doelgroep:

This course is ideal for those who regularly deploy or manage Meraki networks and want to deepen their technical expertise and understanding of the full Meraki product suite and features. his may include professionals with job titles or in roles such as: Consulting Systems Engineer: Deployment Engineer; Network Administrator; Network Manager; Network Engineer; Site Reliability Engineer; Systems Engineer; Technical Solutions Architect; Wireless Design Engineer; Wireless Engineer.

## Doelstelling:

- **After completing this course you should be able to:**

- Plan new Cisco Meraki architectures and expand existing deployments

- Design the network for scalable management and high availability

- Describe how to automate and scale Meraki deployments with dashboard tools

- Use dynamic routing protocols to expand networks and improve WAN performance

- Describe proper QoS, policy and performance-based routing configurations across a Cisco Meraki network and WAN optimization through traffic shaping

- Describe Virtual Private Network (VPN) and Wide Area Network (WAN) topologies and how to integrate them

- Secure, expand, and shape the network

- Implement switched network concepts and practices, and configure guests networks

- Implement wireless configurations concepts and practices

- 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

## Vereiste kennis en vaardigheden:

**Attendees should meet the following prerequisites:**

## Examens en certificering

**Recommended as preparation for the following exams:**

- Completed ECMS1 or CMNO, or possess equivalent Meraki knowledge and experience
- Be CCNA-certified or have an equivalent level of technical expertise
- Be employed by Cisco Systems, a Meraki partner, or a Meraki customer
- CCNA - Implementing and Administering Cisco Solutions
- ECMS1 - Engineering Cisco Meraki Solutions 1

- **500-220 - ECMS -** Cisco Meraki Solutions Specialist

## Cursusinhoud:

### Planning New Meraki Architectures and Expanding Existing Deployments

- Cisco Meraki Solution Sizing
- Explore Various Dashboard User Interface Features Demo
- Licensing
- Reference

### Designing for Scalable Management and High Availability

- Role-Based Access
- Tag Design and Structure
- Cisco Meraki MX Security Appliance High-Availability
- Cisco Meraki MS Switch High Availability
- High-Density Wireless Design

### Automation and Scaling Meraki Deployments

- RBAC with SAML
- Configure SAML and Create SAML Roles Demo
- Network Cloning
- Clone a Network and Synchonize a Configuration Demo
- Configuration Templates
- Explore Configuration Templates Demo
- Network Provisioning with APIs
- Use Google Sheets and Script Editor with the Cisco Meraki Dashboard API Demo

### Designing Routing on the Cisco Meraki Platform

- Routing Across Cisco Meraki Networks
- Explore Layer 3 Routing Including Creating, Editing and Moving SVIs Demo
- Dynamic Routing with OSPF
- BGP for Scalable WAN Routing and Redundancy

### Describing QoS and Traffic Shaping Design

- Wireless and Wired QoS Design
- Prepare the Network for Voice
- Traffic shaping and Prioritizing on the Cisco Meraki MX Platform

### Building VPN and WAN Topologies

- Cisco Meraki MX VPN Operation Modes
- VPN Design and Toplogies
- Auto VPN
- Design a Scalable VPN Topology
- Explore the Cisco Merkai MX Sizing Guide Demo
- Integrate Cisco Meraki vMX into an Auto VPN Architecture
- SD-WAN Fundamentals
- SD-WAN Design
- Explore Cisco Meraki vMX and SD-WAN

### Securing, Expanding and Shaping the Network

- Cisco Meraki Security Overview
- Default Behaviour and Rule-Processing Order
- Advanced Security Services
- Content Filtering
- Cisco Umbrella Integration

### Describing Switched Network Concepts and Practices

- Access Policies Using Cisco Meraki Authentication
- Cloning of Switch Settings
- Switch Templates and Profiles
- Explore Switch Profiles Demo
- LAN and WLAN Guest Access Best Practices

### Implementing Wireless Configuration Practices and Concepts

- Cisco Meraki Dashboard Maps and Floor Plans
- RF Profiles
- Wireless Encryption and Authentication
- SSID Modes for Client IP Addressing
- Bluetooth Low Energy
- BLE Scanning and Bluetooth Clients Demo
- Wireless Threats

### Describing Endpoint Management Concepts and Practices

- Cisco Meraki Systems Manager Platform Overview
- Cisco Meraki Systems Manager Overview Demo
- Device Deployment Methodologies
- Deployment of Applications and Containerization Profiles
- Security Policies and Devices Out of Compliance Demo
- Pairing Network Group Policies with Systems Manager Demo
- Agentless Onboarding with Trusted Access

### Describing Physical Security Concepts and Practices

- Cisco Meraki MV Architecture
- Flexible Camera Deployments with Wireless
- Cisco Meraki MV Product Portfolio, Features and Functionalities
- Motion Search, Motion Recap, Motion Heat Maps and Person Detection Demo
- Business Intelligence

### Preparing Monitoring, Logging and Alerting Services

- Logging Capabilities
- Examine Event, Change and Video Access Logs Demo
- Monitoring Tools and Services
- Examine Monitoring Tools and Features Demo
- Supported Alerts
- Cisco Meraki Dashboard API

### Setting up Reporting and Auditing Capabilities in the Cisco Meraki Dahsboard

- Cisco Meraki Reports
- Manage Firmware Through the Dashboard
- PCI Auditiing

### Gaining Visibility and Resolving Issues using Cisco Meraki Tools

- Troubleshooting Methods
- Logging Capabilities
- Cisco Meraki Security Center Overview Demo
- Wireless Troubleshooting
- Explore Wireless Troubleshooting Tools Demo
- Troubleshoot Cisco Merkai Cloud Application Performance
- Explore VPN Status, Firewall and Static Port Forwarding Information Demo
- Troubleshoot Cisco Meraki Auto VPN
- Local Status Page

### Labs

- Configure Tags, Link Aggregation, Port Mirroring, and High-Density SSIDs
- Establishing Auto VPN
- Configuring Virtual Interfaces and Routing on Cisco Meraki MS Switches
- Configuring Routes and Redistribution
- Configuring Quality of Service
- Configuring Traffic Shaping
- Configuring Load Balancing
- Defining Firewall Rules
- Enabling Advanced Malware Protection, Intrusion Detection, and Intrusion Prevention
- Enabling Content Filtering
- Configure and Apply Access Policies
- Configure Wireless Guest Access
- Configure Service Set Identifiers (SSIDs)
- Implementing RF Profiles
- Implement Air Marshal
- Create Cisco Meraki Systems Manager (SM) Configuration Profiles
- Define Security Policies
- Enforce End-to-End Security
- Set-up Motion Alerts
- Deploy Wireless Cameras

| Configurations in the Dashbard Demo | Gaining Network Insight by Monitoring Applications | ■ Manage Video Retention |
|---|---|---|
| | | ■ Enable Alerts |
| | | ■ Add Monitoring and Reporting |
| | ■ Cisco Meraki Insight Overview | ■ Generate and Analyze Summary Reports |
| | ■ Cisco Meraki Insight Scaling and Licensing | ■ Manage Firmware |
| | ■ Cisco Meraki Insight Overview: A Closer Look at Tracked Applications and WAN Health Demo | ■ Generate a Peripheral Component Interconnect (PCI) Compliance Report |
| | | ■ Troubleshoot an Offline Device |
| | | ■ Troubleshoot Content Filtering |
| | | ■ Troubleshooting Remote Site Connectivity |

## Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk  030 - 60 89 444

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