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## Cisco Meraki SD-WAN: Advanced Policy, Security and Programmability

**Duration: 3 Days    Course Code: N1\_SDWMER    Delivery Method: Virtual Learning**

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### Overview:

This course is hands-on training on Cisco Meraki SD-WAN implementations, basic and advanced Cisco Meraki SD-WAN Security features that are available on Meraki MX routers. Deep dive into capabilities like Firewall and Traffic, Application Aware Firewall, AMP Integration, Content Filtering, Threat Protection, and many other advanced features are covered as a part of this training. This course also provides hands-on training on Cisco Meraki SD-WAN Programmability features.

### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

The primary audience for this course is as follows:

- Systems Engineers
  - Technical Solutions Architects
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### Objectives:

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| ■ <b>After completing this course you should be able to:</b>           | ■ Understand Cisco Meraki SD-WAN Security Features            |
| ■ Introduction to Cisco Meraki SD-WAN Solution and Products/Components | ■ Implement Firewall and IPS Policies                         |
| ■ Understand key concepts of Cisco Meraki SD-WAN                       | ■ Understand Cisco SD-WAN Programmability features            |
| ■ Implement Meraki SD-WAN Solution                                     | ■ Script APIs to automate Cisco SD-WAN vManage configurations |
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### Prerequisites:

**Attendees should meet the following prerequisites:**

- Basic networking concepts
  - Familiarity with basic network protocols and applications
  - Familiarity with common application delivery methods
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## Content:

### Module 1: Introduction to Meraki SD-WAN and Meraki Key Concepts

- Meraki Centralized Dashboard
- Meraki key concepts
- Meraki Concentrator Mode
- VPN Topology
- Split Tunnel and Full Tunnel
- Hub and Spoke and VPN Mesh
- Meraki Connection Monitor
- Data Center Redundancy (DC-DC Failover)
- Warm Spare for VPN Concentrators

### Module 2: Meraki SD-WAN Deployment Models

- Introduction
- Data Center Deployment
- MX Deployment Considerations
- Upstream DC Switching Considerations
- Routing Considerations
- Firewall Considerations
- Branch Deployment
- AutoVPN at the Branch
- Hub and Spoke VPN Deployment
- Hub Priorities and Design considerations

### Module 3: Meraki SD-WAN Security

- Exploring the SD-WAN and Security Dashboard
- Site-to-site VPN Deep Dive
- Client VPN Technologies
- Access control and Splash Page
- NAT and Port Forwarding
- Firewall and Traffic Shaping
- Content Filtering and Threat Protection
- Meraki and Cisco Umbrella Integration

### Module 4: Firewall and Traffic Shaping Policies

- MX Firewall Settings
- Outbound Rules
- Appliance Services
- Layer 7 Firewall Rules
- Forwarding Rules
- IP Source Address Spoofing Protection
- Overview and Key Terms
- NAT Modes Implementation
- Supported Deployment Topologies
- SD-WAN and Traffic Shaping
- Uplink Configurations
- Uplink Selections
- Global Bandwidth Limitations
- Traffic Shaping Rules
- Web Cache

### Module 5: SD-WAN Security – Content Filtering and Threat Protection

- MX and Active Directory Integrations
- Content Filtering Implementations and Troubleshooting
- Cisco AMP Integrations and Threat Protection
- Threat Grid Integrations

### Module 6: Programmable API

- Meraki Dashboard API with Postman
- Meraki Organization and Networks Import into Postman
- Meraki Devices into the appropriate Networks using APIs
- Troubleshooting Meraki using APIs
- Dashboard
- Device Dashboard

## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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