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Learning Style: On Demand

Technology: Cisco

Difficulty: Intermediate

Course Duration: 40 Hours

Cisco Digital Network Architecture Implementation Essentials (DNAIE) v2.0 - On Demand

About this course:

This Cisco certification training course for Cisco DNA learning is all you need to get complete insight into the technology. Our Digital Network Architecture is created in a manner that engineers from all levels can take away intensive knowledge of the platform and become experts in its various products. From implementing the system to troubleshooting problems, our experts allow you to understand it all better and be able to offer efficient services in the real world.

Cisco engineers earn handsome income and that income doubles when you practice and learn from accredited professionals. There are extensive learning fields in Cisco DNA and with the help of highly targeted exercises and online lab exams, we ensure maximum success. This course focuses on digital networks and their implementation. Furthermore, there are additional technologies and product knowledge you are taught throughout the course.

From programming to security clearance and network analytics, engineers' part of the Cisco certification training will leave with well-equipped insight. If you are also interested in learning Cisco DNA automation utilizing APIC-EM model, this course is for you. In this course you will be able to learn a number of crucial topics part of the Cisco Digital Network Architecture. Our accredited professionals help you gain complete knowledge of Network Functions Virtualization, deployment of single WAN IP of ENCS, Cisco 5400 system, Cisco analytics, Cisco Stealthwatch security, Connected Mobile Experiences, SD-Access and its deployment, network plug and play, IWAN, EasyQoS, and much more.

Learning about Cisco DNA means you are learning about this intense software-based crucial architecture that has many functions. By the end of this course you will be able to work on Cisco network, automation, security, troubleshooting, analysis, and implement enterprise network operations on your own without any trouble.

This course is appropriate for you if you want to get hands on knowledge of the following:

- Automation using Cisco APIC-EM and its built-in applications such as Network Plug and Play, EasyQoS, IWAN, and Path Trace
- Virtualization in an enterprise branch network using Cisco Enterprise NFV, including a deep dive into the Cisco 5400 ENCS
- Analytics using Cisco CMX Cloud
- Security using Cisco Stealthwatch, Cisco TrustSec, and Cisco ISE
- Enterprise network fabric
- SD-Access in a campus network, including an overview of applications such

as design, policy, and provisioning on DNA Center to automate the campus fabric

Course Objective:

After completing this course, you should be able to:

- Identify the Cisco DNA solution by describing its vision, strategy, general concepts, and components
- Implement network automation using Cisco APIC-EM and built-in applications such as Network Plug and Play, Easy QoS, IWAN, and Path Trace
- Implement network virtualization using Cisco Enterprise NFV in enterprise branch networks
- Implement network analytics using Cisco CMX Cloud
- Implement network security using Cisco Stealthwatch, Cisco TrustSec, and Cisco Identity Services Engine (ISE)

Audience:

- Network engineers who are highly skilled and want to work with enterprise organizations
- Channel partner field engineers

Prerequisite:

The following skills are preferred but not necessary to be a part of this course:

- Foundational understanding of network design, routing, switching, QoS, and security
- Understanding of Cisco Discovery Protocol, Link Layer Discovery Protocol (LLDP), Dynamic Host Configuration Protocol (DHCP), DNS, Network Time Protocol (NTP), and Simple Network Management Protocol (SNMP)
- Understanding of TCP protocols such as HTTP, HTTPS, and Telnet
- Understanding of routing concepts and the ability to configure routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF)

- Understanding of enterprise WAN and Dynamic Multipoint VPN (DMVPN)
- Understanding of firewall operation (especially transparent mode)
- Basic understanding of Cisco Prime® Infrastructure, KVM virtualization, and programming concepts
- Basic understanding of SDN, northbound APIs, southbound APIs, and representational state transfer (REST) APIs
- Understanding of WLAN parameters
- Basic understanding of wireless controllers (WLCs) and access point capabilities in WLCs
- Understanding of Power over Ethernet (PoE) in Cisco switches

Course Outline:

- Identifying Cisco Digital Network Architecture Vision
- Identifying Cisco Digital Network Architecture Solution Components
- Identifying the Role of Automation and Orchestration Controllers in Cisco DNA
- Implementing Automation in Enterprise Networks
- Implementing Cisco Network Plug and Play Solution
- Implementing Cisco EasyQoS Solution
- Implementing Cisco Intelligent WAN Solution
- Troubleshooting Using Cisco APIC-EM Path Trace Application
- Implementing Cisco Enterprise Network Functions Virtualization
- Implementing Network Programmability in a Cisco DNA Architecture
- What Is Network Analytics in Cisco DNA?
- Cisco DNA Analytics Architecture
- Cisco DNA Analytics Proof Points
- Cisco Network Data Platform Architecture
- Cisco CMX on Premises
- Context-Aware Service Architecture
- Cisco CMX Connect
- Cisco CMX Analytics
- Cisco CMX API
- Cisco CMX Configuration
- Cisco CMX Cloud
- Pervasive Security
- Introduction to NetFlow
- Introduction to Cisco Stealthwatch
- Introduction to Cisco ISE
- Integrating Security Tools
- Implementing Cisco Software-Defined Access in Campus Networks

Lab

- Introducing Cisco APIC-EM GUI – Network, Device, and Topology Discovery Using APIC-EM
- Implementing Cisco Network Plug and Play Solution Using Cisco APIC-EM
- Implementing EasyQoS Using Cisco APIC-EM GUI
- Site Provisioning and Monitoring Using Cisco IWAN Application
- Troubleshooting Using Cisco APIC-EM Path Trace Applications
- Site Provisioning with NFVIS on Cisco UCS® C220 M3 Server Using OAM Servers
- Initial Switch and WLC Configuration for Cisco CMX
- Adding Maps to Cisco Prime Infrastructure
- Continuing to Add Maps to Cisco Prime Infrastructure
- AP Placement and Orientation
- Exporting Maps from Cisco Prime Infrastructure
- Performing the Initial Configuration of CMX
- Using the System Settings Menu to Configure Cisco CMX
- Adding Outline Wall to CMX Floor Plan Maps
- Using Detect and Connect
- Continuing to Customize Detect and Locate in CMX
- Working with Analytics in Cisco CMX
- Working with Customized Reports in the Analytics Service
- Continuing to Add Widgets to a Customized Report in CMX
- Logging in to the CMX Portal
- Configuring an ACL in the WLC for Use with CMX Cloud
- Configuring the WLAN and Security in the WLC to Support CMX Cloud
- Creating a Presence Site in CMX Cloud
- Initial Portal Creation in Connect and Engage
- Adding and Deleting an Element and Adding a Background Image to the Portal Template
- Customizing Text and Registration Elements in the Portal Template
- Exploring the Background Image, Themes, and Languages in the Portal Template
- Connecting a Client to the Wi-Fi Network
- Working with Presence Analytics and Connect and Engage
- Using the Manage Function in CMX Cloud
- Meraki® Integration with CMX Cloud
- Configuring Northbound Notifications