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Learning Style: Virtual Classroom

Technology: Cisco

Difficulty: Intermediate

Course Duration: 2 Days

Cisco DNA Center Automation & Assurance (DNACA)



About this Course:

This course will cover the basics of installing and operation of the Cisco DNA Center (DNAC) running version 2.x. The Cisco DNAC is a stand-alone product that provides a single dashboard for every fundamental management task to simplify

running an enterprise network. The DNAC is the management piece of the Software Defined Access (SDA) solution

Course Objectives:

Upon completion of this course, you should be able to:

- Describe the Cisco DNA Center solution as it relates to the enterprise network
- Deploy a Cisco DNA Center v1.3 appliance
- Understand and operate Cisco DNA Center Automation features
- Understand and operate Cisco DNA Center Assurance features

Audience:

The primary audience for this course is system engineers, network engineers, technical architects, technical support personnel

Prerequisites:

It is recommended but not required to have the following skills and knowledge before attending 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)
- Basic knowledge of SDN, northbound APIs, southbound APIs, and (REST) APIs
- Understanding of WLAN parameters
- Basic understanding of wireless controllers (WLCs) and access point (AP) capabilities

Course Outline:

Lesson 1: Cisco DNA Center Introduction

- Cisco DNA Center Architecture & Design
- Assurance overview
- Automation overview

- SD Access overview

Lesson 2: Cisco DNA Center - Installation

- Cisco DNA Center appliance(s) installation overview
- Install and configure a Cisco DNA Center appliance
- Verify Cisco DNA Center appliance installation
- Install Cisco DNA Center appliance upgrades & updates
- Cisco DNA Center appliance UI overview
- Lab 2-1

Lesson 3: Cisco DNA Center - Setup - Network Hierarchy & Network Settings

- Network Hierarchy overview
 - Site Management
- Network Settings overview
 - Network properties
 - Device Credentials
- Lab 3-1

Lesson 4: Cisco DNA Center - Setup - Device Inventory

- Device Inventory overview
- Network Devices requirements
 - Device and product compatibility
 - Device management configuration
- Managing Device Inventory overview
 - Device discovery
 - Manually add Device
 - Provision Devices
- Lab 4-1

Lesson 5: Cisco DNA Center Assurance

- Assurance overview
- Troubleshooting and Monitoring Tools
 - Troubleshooting Wired networks
 - Troubleshooting & Monitoring Wireless networks
 - Troubleshooting & Monitoring Applications
 - Troubleshooting & Monitoring users
- Sensor Driven Tests overview
 - Troubleshooting & Monitoring using Sensor Driven Tests
- Lab 5-1

Lesson 6: Cisco DNA Center Automation – Configuration Management

- Configuration Management overview
- Create and deploy configuration using Network Profiles
- Create and deploy configuration using Template Editor
- Lab 6-1

Lesson 7 Cisco DNA Center Automation - Software Image Management

- Software Image Management (SWIM) overview
- Managing Software Images
 - Image repository management
 - Create golden software image & role
 - Verify golden software image creation
- Lab 7-1

Lesson 8: Cisco DNA Center Automation – Plug n Play (PNP) Management

- Plug n Play overview
- Plug n Play prerequisites
- Plug n Play device onboarding
- Lab 8-1