| Course: | DNACA - Cisco DNA Center Automation & Assurance |
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| Duration: | 2 Days |

## Description:

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

## Objective:

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

## Prerequisites:

Students should have an understanding of network routing and switching principles equivalent to the Cisco CCNA certification level.

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

## Who Should Attend:

The primary audience for this course is system engineers, network engineers, technical architects, technical support personnel, and channel partners and resellers.

# Cisco DNA Center Automation & Assurance

## 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