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## Understanding Cisco SDA Fundamentals v1.0

DURATION: 3 DAYS

COURSE CODE: SDAFND

FORMAT: LECTURE/LAB

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### COURSE DESCRIPTION

The Understanding Cisco SDA Fundamentals (SDAFND) v1.0 course introduces you to Cisco® Software-Defined Access and teaches you, through a combination of lectures, labs, and simulations how to implement simple, single-site fabric networks.

You will learn the benefits of leveraging Software-Defined Access in the Cisco-powered Enterprise Campus network. SDAFND will introduce the solution, its architecture and components, and guide you through labs to design and deploy simple Cisco SD-Access networks.

This course will help you:

- Deploy Cisco SD-Access networks
- Explain Cisco Software-Designed Access
- Operate, manage, and integrate Cisco DNA Center™
- Prepare for various Cisco certifications: Cisco Certified Specialist – Enterprise Core (ENCOR), and Cisco Certified Specialist – Enterprise Design (ENSLD)

### PREREQUISITES

To fully benefit from this course, you should have the following knowledge and skills:

- CCNP® level core networking knowledge
- Ability to use Windows and Linux CLI tools such as ping, SSH, or running scripts

Here are recommended Cisco learning offerings that may help students meet these prerequisites:

- Implementing and Administering Cisco Solutions (CCNA®) v1.0
- Implementing Cisco Enterprise Network Core Technologies (ENCOR) v1.1

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### LEARNING OBJECTIVES

- Describe Cisco SD-Access architecture and its components
- Explain Cisco DNA Center deployment models, scaling, and high availability
- Identify Cisco SD-Access fabric protocols and node roles
- Understand the Cisco SD-Access Wireless deployment models
- Automate Day 0 device onboarding with Cisco DNA Center LAN Automation and Network PnP
- Deploy simple Cisco SD-Access fabric networks
- Monitor health and performance of the network with Cisco DNA Center Assurance
- Interact with the Cisco DNA Center Platform Intent APIs

## COURSE OUTLINE

### 1. Introducing Cisco SD-Access

- Cisco SD-Access Overview
- Cisco SD-Access Components and Roles

### 2. Introducing Cisco DNA Center

- Cisco Networking Overview
- Cisco DNA Center Deployment Models Overview
- Cisco SD-Access in Cisco DNA Center

### 3. Exploring Cisco SD-Access Solution Components

- Cisco SD-Access Protocols and Roles Cisco SD-Access Control Plane
- Cisco SD-Access Data Plane
- Cisco SD-Access Policy Plane
- Cisco DNA Center and Cisco ISE Integration

### 4. Exploring Cisco SD-Access Wireless Architecture

- Cisco SD-Access Wireless Overview Cisco SD-Access - Legacy Wireless Overview
- Deploying Cisco SD-Access - Fabric Enabled Wireless
- Cisco SD-Access - Guest Wireless Access Overview

### 5. Automating Network Changes with Cisco DNA Center

- Exploring Cisco DNA Center Design Workflow
- Exploring Cisco DNA Center Day 0 Onboarding
- Automating Device Onboarding with Cisco Network Plug and Play

### 6. Deploying Fabric Networks with Cisco DNA Center

- Deploying Cisco SD-Access Fabric -Policy Window
- Deploying Cisco SD-Access Fabric -Provision Workflow
- Cisco SD-Access Fusion Devices

### 7. Exploring Cisco DNA Center Assurance

- Cisco DNA Center Assurance Components, Analytics and Metrics
- Cisco DNA Center Assurance Health, Issues and Time Travel
- Monitoring Health and Performance with Cisco DNA Center Assurance
- Troubleshooting Cisco SD-Access with Cisco DNA Center Assurance

### 8. Exploring Cisco DNA Center Programmability

- Enterprise Network Programmability Overview
- Exploring Cisco DNA Center REST APIs
- Exploring Cisco DNA Center Python Libraries
- Introducing Cisco DNA Center Assurance Workflows

## DISCOVERY LABS

- Explore Cisco DNA Center User Interface
- Verify Location Identifier Separation Protocol (LISP) Operation in Cisco SD-Access
- Integrate Cisco DNA Center and Cisco Identity Services Engine (Cisco ISE) [Simulation]
- Provision Access Points in Cisco DNA Center [Simulation]
- Provision Underlay Networks with Cisco DNA Center LAN Automation [Simulation]
- Provision Underlay Networks with Cisco DNA Center LAN Automation (cont.)
- Deploy Cisco SD-Access Single Site Fabric [Simulation]
- Deploy Cisco SD-Access Single Site Fabric (cont.)
- Explore Cisco DNA Center Assurance [Simulation]
- Cisco DNA Assurance Issues and Guided Remediation [Simulation]
- Interact with Cisco DNA Center Intent APIs Using Python