

# CCIE Enterprise Triad: Connectivity, Security, (Automation (SISE, SDA FND, ENAUTO

سرفصل ها

## Part one: Cisco SDA fundamentals

Describe Cisco SD-Access architecture and its components

Explain Catalyst 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 Catalyst Center LAN Automation and Network PnP

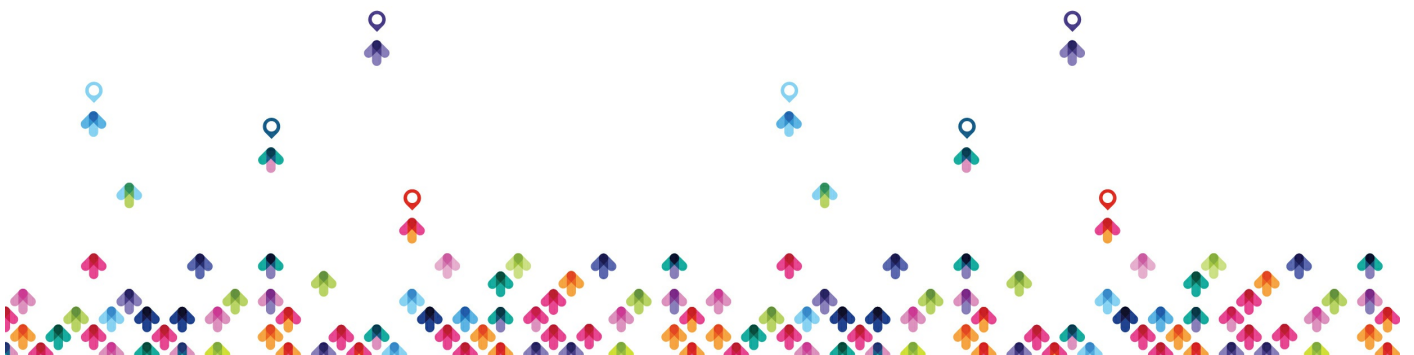
Deploy simple Cisco SD-Access fabric networks

Monitor health and performance of the network with Catalyst Center Assurance

Interact with the Catalyst Center Platform Intent APIs

## LAB OUTLine:

Explore Catalyst Center User Interface



Verify Location Identifier Separation Protocol (LISP) Operation in Cisco SD-Access

Integrate Catalyst Center and Cisco Identity Services Engine (Cisco ISE) [Simulation]

Bringing up fabric !

Provision Underlay Networks with Catalyst Center LAN Automation [Simulation]

Provision Underlay Networks with Catalyst Center LAN Automation (cont.)

Deploy Cisco SD-Access Single Site Fabric [Simulation]

Deploy Cisco SD-Access Single Site Fabric (cont.)

Explore Catalyst Center Assurance [Simulation]

Cisco DNA Assurance Issues and Guided Remediation [Simulation]

## Part Two: Cisco SISE

### ۱ Basic Intro

۱.۱ Configure personas

۱.۲ Describe deployment options

۱.۳ Describe hardware and virtual machine performance specifications

۱.۴ Describe zero-touch provisioning



## ۲ policy enforcement

### ۲.۱ Configure native AD and LDAP

### ۲.۲ Describe identity store options

#### ۲.۲.a LDAP

#### ۲.۲.b AD

#### ۲.۲.c PKI

#### ۲.۲.d Multifactor authentication

#### ۲.۲.e Local

#### ۲.۲.f SAML IDP

#### ۲.۲.g Rest ID

### ۲.۳ Configure network access using ۸۰۲.۱X

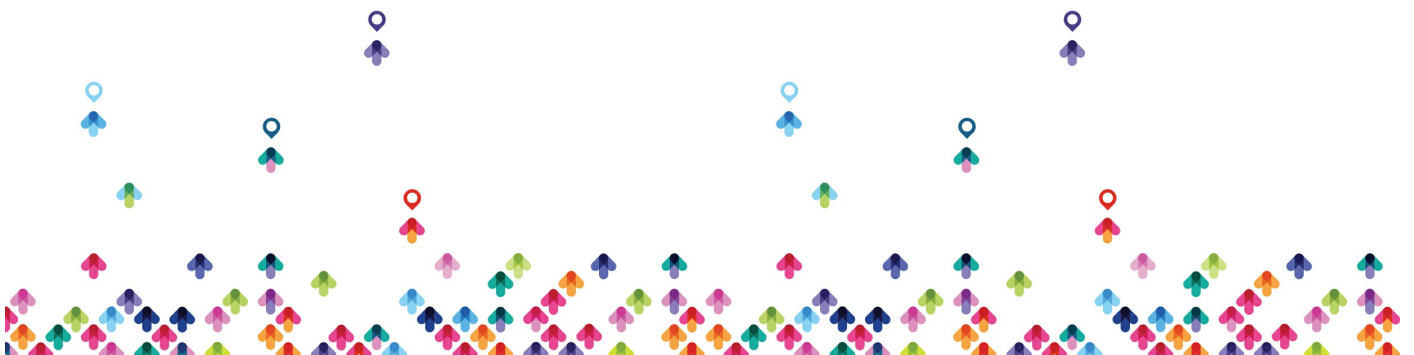
### ۲.۴ Configure wired network access using ۸۰۲.۱X and IBNS ۲.۰

#### ۲.۴.a Monitor mode

#### ۲.۴.b Low impact

#### ۲.۴.c Closed mode

### ۲.۵ Implement MAB



## ۲.۶ Configure Cisco TrustSec

### ۲.۷ Configure policies including authentication and authorization profiles

#### ۳ guest and web

##### ۳.۱ Configure web authentication

##### ۳.۲ Configure guest access services

##### ۳.۳ Configure sponsor and guest portals

#### ۴ BYOD

##### ۴.۱ Describe Cisco BYOD functionality

###### ۵.۱.a Use cases and requirements

###### ۵.۱.b Solution components

###### ۵.۱.c BYOD flow

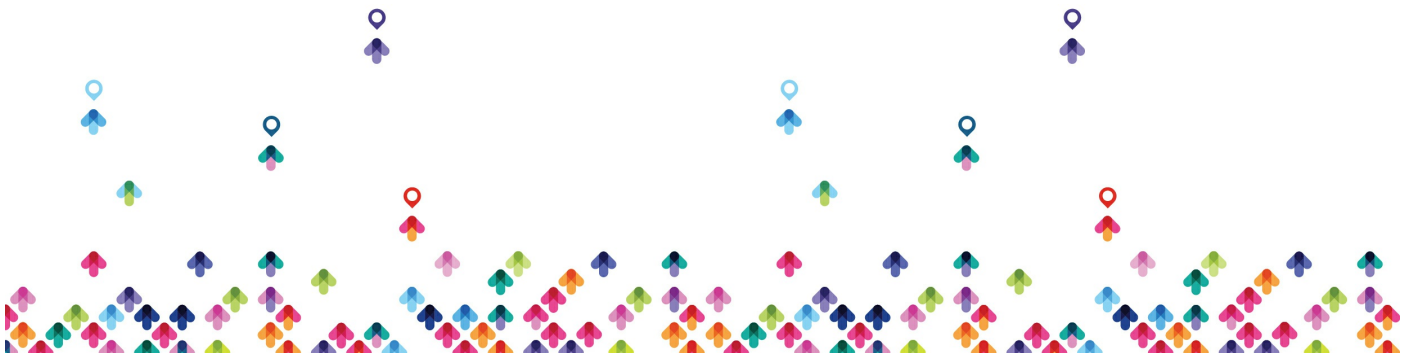
#### ۵ Device Administration

##### ۵.۱ Compare AAA protocols

##### ۵.۲ Configure TACACS+ device administration and command authorization

## Part three: ENAUTO

### ۱ Network programming foundation

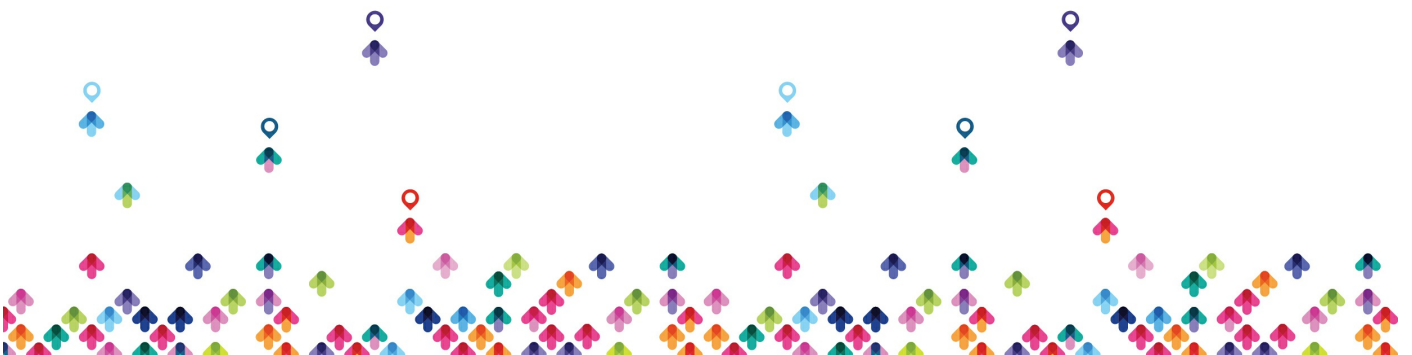


- ۱.۱ Utilize common version control operations with git (add, clone, push, commit, diff, branching, merging conflict)
  - ۱.۲ Describe characteristics of API styles (REST and RPC)
  - ۱.۳ Describe the challenges encountered and patterns used when consuming APIs synchronously and asynchronously
  - ۱.۴ Interpret Python scripts containing data types, functions, classes, conditions, and looping
  - ۱.۵ Describe the benefits of Python virtual environments
  - ۱.۶ Explain the benefits of using network configuration tools such as Ansible and Terraform for automating IOS XE platforms
- ۲ IBN Intent based networking

### ۳ **AutoPilot ۱.۰.۱: Navigating the Basics of Automation**

### ۴ **Code Harmony: Unifying JSON, XML & YANG for Seamless Data Integration**

- ۴.۱ Identify the JSON instance based on a YANG model (including YANG Suite)
- ۴.۲ Identify the XML instance based on a YANG model (including YANG Suite)
- ۴.۳ Interpret a YANG module tree generated per RFC۸۳۴۰.
- ۴.۴ Compare functionality, benefits, and uses of OpenConfig, IETF, and native



## YANG models

۴.۵ Compare functionality, benefits, and uses of NETCONF and RESTCONF

## ۵ Automation Alchemy Lab: Mastering Python, Ansible & NORNIR for Network Magic

All hands on labs!!!

## Network Command Hub: Orchestrating Cisco Catalyst, DNA, and SD-WAN

۶.۱ Compare traditional versus software-defined networks

۶.۲ Describe the features and capabilities of Cisco DNA Center

۶.۲.a Network assurance APIs

۶.۲.b Intent APIs

۶.۲.c Events and notifications

۶.۲.d SDA

۶.۳ Describe features and capabilities of Cisco SD-WAN vManage APIs

۶.۴ Implement a Python script to perform API requests for Cisco SD-WAN vManage Device Inventory APIs to retrieve and display data

۶.۵ Construct API requests for Cisco SD-WAN vManage Administration

مخاطبان دوره



- کارشناسان ارشد شبکه
- مدیران شبکه
- مدیران امنیت شبکه

## پیش نیازها

[دوره CCNP](#)

