SDAFND (UNDERSTANDING CISCO SDA FUNDAMENTALS) 1.0

Objetivo

The course objectives are: â¢ Upon completing this course, students will be able to meet these objectives: â¢ Understand Cisco SD-Access architecture and its components; â¢ Understand Cisco DNA Center deployment models, scaling, and high availability; â¢ Understand Cisco SD-Access fabric protocols and node roles; â¢ Understand the Cisco SD-Access Wireless deployment models; â¢ Automate Day 0 device onboarding with Cisco DNA Center LAN Automation and Network PnP; â¢ Deploy simple Cisco SD-Access fabric networks; â¢ Monitor health and performance of the network with Cisco DNA Center Assurance; â¢ Interact with the Cisco DNA Center Platform Intent APIs.

PÃºblico Alvo

This training is recommended for professionals who consider the knowledge and practices in implementing the Cisco DNA / SDA solution.

PrÃ©-Requisitos

To make the most of this training, we recommend that you have the following prior knowledge and skills: â¢ Knowledge in networks covering switching and routing; â¢ Basic knowledge of Microsoft Windows operating systems. â¢ Knowledge of the technologies that support the solution.

Carga HorÃiria

16 horas (2 dias).

ConteÃºdo ProgramÃitico

Introduction
Overview
Course Goal and Objectives

Introducing Cisco SD-Access
Understand Cisco SD-Access architecture and its components
Overview Cisco SD-Access architectural building components
Cisco SD-Access Components and Roles

Introducing Cisco DNA Center
Understand Cisco DNA Center deployment models, scaling, and high availability
Overview the Cisco DNA Center Architecture

Cisco DNA Center Deployment Models Overview
Overview the Cisco DNA Center role in implementing Cisco SD-Access solution

Exploring Cisco SD-Access Solution Components
Understand Cisco SD-Access fabric protocols and node roles
Cisco SD-Access Protocols and Roles
Cisco SD-Access Control Plane
Understand the LISP Control Plane Protocol
Understand Different Device Roles on Control Plane
Control Plane and Cisco SD-Access Implementation Specifics
Cisco SD-Access Data Plane
Understand the VXLAN Encapsulation Protocol,
Understand Encapsulation Methods and Headers
Understand Different Device Roles on Cisco SD-Access Data Plane
Cisco SD-Access Policy Plane
Understand Cisco TrustSec on Cisco SD-Access Policy Plane
Understand Components of Cisco TrustSec, Classification & Tagging
Understand Propagation of TrustSec Security Metadata and Policy Enforcement
Cisco DNA Center and Cisco ISE Integration
Understand the Integration of Cisco DNA Center and Cisco ISE

Exploring Cisco SD-Access Wireless Architecture
Understand the Cisco SD-Access Wireless Deployment Models
Cisco SD-Access Wireless Overview
Understand the Cisco SD-Access Wireless benefits and limitations
Understand the Wireless Deployment Models, Requirements, and Supported Devices
Cisco SD-Access & Legacy Wireless Overview
Overview About Over-The-Top (OTT) Wireless Networks in Cisco SD-Access
Deploying Cisco SD-Access & Fabric Enabled Wireless
Explore the Fabric-Enabled Cisco SD-Access Wireless Networks Deployment
Cisco SD-Access & Guest Wireless Access Overview
Overview About Guest Wireless Access Models in Cisco SD-Access networks

Automating Network Changes with Cisco DNA Center
Automate Day 0 Device Onboarding with Cisco DNA Center LAN Automation and Network PnP
Exploring Cisco DNA Center Design Workflow
Understand the Cisco DNA Center Design Procedures Required for Cisco SD-Access Deployment
Exploring Cisco DNA Center Day 0 Onboarding
Understand the Cisco DNA Center LAN Automation Procedures for Cisco SD-Access Deployment
Automating Device Onboarding with Cisco Network Plug and Play
Understand Cisco Network Plug and Play to Onboard Networking Device in a Campus LAN

Deploying Fabric Networks with Cisco DNA Center
Deploy simple Cisco SD-Access fabric networks
Deploying Cisco SD-Access Fabric & Policy Workflow
Understand Cisco SD-Access Policies for a Successful Deployment Cisco SD-Access Segmentation
Deploying Cisco SD-Access Fabric & Provision Workflow
Understand the Steps to Provision Network Nodes to Cisco SD-Access Fabric

Cisco SD-Access Fusion Devices
Explore the Role of Fusion Devices in Cisco SD-Access Fabric Network

Exploring Cisco DNA Center Assurance
Monitor Health and Performance of Network with Cisco DNA Center Assurance
Cisco DNA Center Assurance Components, Analytics, and Metrics
Understand Cisco DNA Center Assurance, Architecture , Components, Analytics and Metrics
Cisco DNA Center Assurance Health, Issues, and Time Travel
Explore Cisco DNA Center Assurance features
Explore Health Monitoring and Scoring
Explore Assurance Issues and Their Settings
Monitoring Health and Performance with Cisco DNA Center Assurance
Explore the tools and Features Available in Cisco DNA Center Assurance
Explore Monitoring the health and Performance of Network, Clients, and Applications
Troubleshooting Cisco SD-Access with Cisco DNA Center Assurance
Understand Monitoring the Performance and Health of Cisco SD-Access Fabric
Understand Monitoring the Underlay or Overlay
Understand Multiple Tools for Proactive Monitoring of Network Health in Cisco DNA Assurance

Exploring Cisco DNA Center Programmability
Interact with the Cisco DNA Center Platform Intent APIs
Enterprise Network Programmability Overview
Describe the Available Features in Cisco DNA Center for Programmable Network Operations
Exploring Cisco DNA Center REST APIs
Describe the Available REST APIs to Perform Networkwide Operations, and API documentation
Exploring Cisco DNA Center Python Libraries
Explore the Available Options for Using Python Libraries with Cisco DNA Center
Explore the Libraries with the dnacentersdk Library
Introducing Cisco DNA Center Assurance Workflows
Explain the Purpose of Cisco DNA Center Assurance Workflows
Describe the Workflows for Health Monitoring & Troubleshooting
Describe Performing the Path Trace
Explain how to use dnacentersdk Python library for Requesting and Handling Workflow Data

Labs

Discovery 1: Explore Cisco DNA Center User Interface
Task 1: Explore Cisco DNA Center
Task 2: Explore the Design Application in Cisco DNA Center
Task 3: Explore the Discovery Tool in Cisco DNA Center
Task 4: Explore the Provision Application in Cisco DNA Center
Task 5: Explore the Assurance Application in Cisco DNA Center

Discovery 2: Verify LISP Operation in Cisco SD-Access
Task 1: Explore Deployed Cisco SD-Access Fabric
Task 2: Verify Fabric Endpoint Registration and Resolution

Discovery 3: Integrate Cisco DNA Center and Cisco ISE

Task 1: Integrate Cisco DNA Center and Cisco ISE

Discovery 4: Provision Access Points in Cisco DNA Center
Task 1: Provision Access Points in Cisco DNA Center

Discovery 5: Provision Underlay Networks with Cisco DNA Center LAN Automation
Task 1: Provision Underlay Networks with Cisco DNA Center LAN Automation

Discovery 6: Deploy Cisco SD-Access Single Site Fabric
Task 1: Deploy Cisco SD-Access Single Site Fabric

Discovery 7: Explore Cisco DNA Center Assurance
Task 1: Explore Cisco DNA Center Assurance

Discovery 8: Cisco DNA Assurance Issues and Guided Remediation
Task 1: Cisco DNA Assurance Issues and Guided Remediation

Discovery 9: Interact with Cisco DNA Center Intent APIs Using Python
Task 1: Explore Cisco DNA Center Site and Device Programmability
Task 2: Explore Cisco DNA Center Network Programmability
Task 3: Explore Cisco DNA Center SDA Programmability
Task 4: Explore Cisco DNA Center SDA Device Ports Programmability