

SDAFND (UNDERSTANDING CISCO SDA FUNDAMENTALS)

1.0

Objetivo

The course objectives are: Upon completing this course, students will be able to meet these objectives: Understand Cisco SD-Access architecture and its components; Understand Cisco DNA Center deployment models, scaling, and high availability; Understand 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.

Público Alvo

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

Pré-Requisitos

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

Carga Horária

16 horas (2 dias).

Conteúdo Programático

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