SDWAN300 – Implementing Cisco SD-WAN Solutions

Days: 4

Description: The Implementing Cisco SD-WAN Solutions (SDWAN300) v1.0 course gives you deep-dive training about how to design, deploy, configure, and manage your Cisco© Software-Defined WAN (SD-WAN) solution in a large-scale live network, including how to migrate from legacy WAN to SD-WAN. You will learn best practices for configuring routing protocols in the data center and the branch, as well as how to implement advanced control, data, and application-aware policies. The course also covers SD-WAN deployment and migration options, placement of controllers, how to deploy and replace edge devices, and how to configure Direct Internet Access (DIA) breakout.

This course will help you learn to use Cisco SD-WAN to:

- Establish a transport-independent WAN for lower cost and higher diversity
- Meet Service-Level Agreements (SLAs) for business-critical and real-time applications
- Provide end-to-end segmentation for protecting critical enterprise compute resources
- Extend seamlessly into the public cloud
- Optimize the user experience for Software-as-a-Service (SaaS) applications

Course Objectives:

After taking this course, you should be able to:

- Describe the Cisco SD-WAN overlay network and how modes of operation differ in legacy WAN versus SDWAN
- Describe options for SD-WAN cloud and on-premises deployments, as well as how to deploy virtual vEdge and physical cEdge devices with Zero Touch Provisioning (ZTP) and device templates
- Describe best practices in WAN routing protocols, as well as how to configure and implement transport-side connectivity, service-side routing, interoperability, and redundancy and high availability
- Describe dynamic routing protocols and best practices in an SD-WAN environment, transport-side connectivity, service-side connectivity, and how redundancy and high availability are achieved in SD-WAN environments
- Explain how to migrate from legacy WAN to Cisco SD-WAN, including typical scenarios for data center and branch
- Explain how to perform SD-WAN Day 2 operations, such as monitoring, reporting, logging, and upgrading

OUTLINE:

CISCO SD-WAN OVERLAY NETWORK

- Examining Cisco SD-WAN Architecture

CISCO SD-WAN DEPLOYMENT

- Examining Cisco SD-WAN Deployment Options
- Deploying Edge Devices
- Deploying Edge Devices with Zero-Touch Provisioning

SDWAN300 – Implementing Cisco SD-WAN Solutions

- Using Device Configuration Templates
- Redundancy, High Availability, and Scalability

CISCO SD-WAN ROUTING OPTIONS

- Using Dynamic Routing
- Providing Site Redundancy and High Availability
- Configuring Transport-Side Connectivity

CISCO SD-WAN POLICY CONFIGURATION

- Reviewing Cisco SD-WAN Policy
- Defining Advanced Control Policies
- Defining Advanced Data Policies
- Implementing Application-Aware Routing
- Implementing Internet Breakouts and Network Address Translation (NAT)

CISCO SD-WAN MIGRATION AND INTEROPERABILITY

- Examining Cisco SD-WAN Hybrid Scenarios
- Performing a Migration

CISCO SD-WAN MANAGEMENT AND OPERATIONS

- Performing Day-2 Operations
- Performing Upgrades

LAB OUTLINE

- Deploying Cisco SD-WAN Controllers
- Adding a Branch Using Zero Touch Provisioning (ZTP)
- Deploying Devices Using Configuration Templates
- Configuring Controller Affinity
- Implementing Dynamic Routing Protocols on Service Side
- Implementing Transport Location (TLOC) Extensions
- Implementing Control Policies
- Implementing Data Policies
- Implementing Application-Aware Routing
- Implementing Internet Breakouts
- Migrating Branch Sites
- Performing an Upgrade