

CCNP ENTERPRISE – SDWAN 300-415 – WAN Automation Implementing Cisco SD-WAN Solutions v1.0 (300-415)

Exam Description:

- Implementing Cisco SD-WAN Solutions v1.0 (ENSDWI 300-415) is a 90-minute exam associated with the CCNP Enterprise Certification.
 - This exam certifies a candidate's knowledge of Cisco's SD-WAN solution including
 - SD-WAN architecture
 - Controller deployment
 - Edge router deployment, policies, security, quality of service, multicast and management and operations.
- The course,

Implementing Cisco SD-WAN Solutions, helps candidates to prepare for this exam.

Cisco SD WAN Training Course emphasizes on all technical aspects right from configuration to implementation of Cisco SD-WAN.

In this course, you will learn about:

- Cisco SD-WAN Technology fundamentals
- Solution Overview
- Managing Cisco SD-WAN Components
- Configure and operate VManage, VBond, VEdge, VManage.
- Deploy vEdge routers
- Configure, operate, monitor overlay routing in a SDWAN network
- Policies and Quality of Service (QoS) in the SD-WAN overlay network.

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Implementing Cisco SD-WAN Solutions v1.0 (300-415)

COURSE CONTENT

Introduction

- Why SD-WAN make sense today
- SD-WAN basic functionality
- SD-WAN vendor space
- SD-WAN Solution Components
- SD-WAN Solution Overview
- SD-WAN Components

SD-WAN Architecture

- Traditional WAN – Challenges
- SD-WAN Overview and definitions
- SD-WAN Benefits
- SD-WAN Key Concepts
- Cisco SD-WAN Architecture and Components
- Orchestration plane (vBond, NAT)
- Management plane (vManage)
- Control plane (vSmart, OMP, OMP-GR)
- Data plane (vEdge)
- TLOC
- IPsec
- Route (OMP route, TLOC route, Service Route)
- BFD
- WAN Edge platform types, capabilities (vEdges, cEdges)

SD-WAN Controller Deployment

- Controller cloud deployment
- Controller on-Prem Deployment
- Hosting platform (KVM/Hypervisor)
- Installing controllers
- Scalability and redundancy
- Configure and verify certificates and whitelisting
- Troubleshoot control-plane connectivity between controllers
- Router Deployment

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Describe WAN Edge deployment

- On-boarding
- Orchestration with zero-touch provisioning/plug-and-play
- Single/multi data center/regional hub deployments
- Configure and verify SD-WAN data plane
- TLOC understanding
- Underlay-overlay connectivity
- Configure and verify OMP
- Configure and verify TLOCs
- Configure and verify CLI and vManage feature configuration templates
- VRRP
- OSPF
- BGP

Cloud onRamp

- SaaS
- IaaS
- Colocation services

Policy Framework

- Policy Configuration overview
- Policy distribution
- Policy attachment points
- Configure and verify control policies
- Configure and verify data policies
- Configure and verify end-to-end segmentation
- VPN segmentation
- Configure and verify SD-WAN application-aware routing
- Configure and verify direct Internet access

Security and Quality of Service

- Configure and verify service insertion

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- Describe application-aware firewall

Application QoE

- Understanding about NBAR
- Configure and verify QoS treatment on WAN edge routers
- Scheduling
- Queuing
- Shaping
- Policing

Management and Operations

- Describe monitoring and reporting from vManage
- Configure and verify monitoring and reporting
- Describe REST API monitoring
- Describe software upgrade from vManage

