

# Cisco SD-WAN (Viptela) Training

Course ID: SD-WAN



**Course Time:**  
2 Days

## Course Description

This course covers Cisco Software-Defined WAN (SD-WAN), which is an overlay architecture that overcomes the biggest drawbacks of traditional WAN. Students will be able to deploy a Cisco SD-WAN over any transport (MPLS, Broadband, LTE, VSAT etc.) and provide management, policy control, and application visibility across the enterprise. This hands-on course covers the Cisco SD-WAN product and contains extensive labs to reinforce the knowledge learned

## Learning Objectives

After this course you should be able to understand:

- + Describe how to deploy SD-WAN
- + Configure SD-WAN environment
- + Deploy Zero-Touch Provisioning
- + Implement SD-WAN Security
- + Configure SD-WAN Policies

## Who Should Attend

- + Data Center Architects
- + Cloud Infrastructure Architects
- + Network Engineers
- + System Administrators
- + Storage Administrators

## Prerequisites

- + Familiarity with WAN Networks

## Course Content (continued on next page)

### Module 1: Cisco SD-WAN

#### Introduction

- + High-level Cisco SD-WAN Deployment models
- + Application level SD-WAN solution
- + Cisco SDWAN high availability solution
- + Cisco SD-WAN Scalability
- + Cisco SD-WAN Solution Benefits

### Module 2: Cisco SD-WAN Orchestration

- + Introduction
- + vManage NMS
- + vSmart Controller
- + vBond Orchestrator
- + Controller Resiliency Architecture

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## Course Content

### Module 3: Site Architecture and Deployment Models

- + Site Capabilities
- + vEdge Router
- + vEdge form factors

### Module 4: Zero Touch Provisioning

- + Overview
- + User Input Required for the ZTP Automatic Authentication Process
- + Authentication between the vBond Orchestrator and a vEdge Router
- + Authentication between the vEdge Router and the vManage NMS
- + Authentication between the vSmart Controller and the vEdge Router

### Module 5: Cisco SD-WAN Solution

- + Overlay Management Protocol (OMP)
- + Cisco SDWAN Circuit Aggregation Capabilities
- + Secure Connectivity in Cisco SD-WAN
- + Performance Tracking Mechanisms
- + Application Discovery
- + Dynamic Path Selection
- + Performance Based Routing
- + Dynamic Cloud Access

### Module 6: Cisco SD-WAN Security Aspects

- + Role-based Security
- + Control Plane
- + Data Plane
- + Controller Protection
- + vEdge Protection
- + Segmentation
- + Application Blocking
- + Zone-based Firewall

### Module 7: Application Monitoring

- + vManage
- + vAnalytics
- + Ecosystem Partner Solutions

### Module 8: Multi-Tenancy

- + Multi-Tenant Mode
- + Creating Tenants
- + Adding Controller
- + Adding vEdges
- + RBAC

**Lab 1:** Introduction to the Cisco SD

**Lab 2:** Add vEdge to vManage Inventory

**Lab 3:** Control-Plane Connectivity

**Lab 4:** Overlay Network

**Lab 5:** Zero-Touch Provisioning

**Lab 6:** vManage Templates

**Lab 7:** vManage Basic Policies

**Lab 8:** Application Aware Policies

**Lab 9:** Analytics

**Lab 10:** Troubleshooting

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