Current Technologies
Computer Learning Centers

+1 (219) 764-3800
6210 Central Ave, Portage IN
sales@ctclc.com
www.ctclc.com

CISCO
Partner
Platinum Learning

WHERE GREAT TRAINING HAPPENS EVERYDAY!

Installing, Configuring, Monitoring and Troubleshooting Cisco Catalyst SD-WAN (SDWAN) V2.0

Installing, Configuring, Monitoring and Troubleshooting Cisco Catalyst SD-WAN (SDWAN) V2.0

This five-day hands-on instructor-led course offers comprehensive training on Cisco Catalyst (Viptela) SD-WAN, focusing on the 20.12 release for SD-WAN and the 17.12 release for IOS-XE, explicitly designed for Network professionals. Throughout the course, participants will gain hands-on experience with the administration and configuration of SD-WAN Controllers and Cisco IOS-XE devices.

How you'll benefit

This class will help you:

- Master deploying and configuring SD-WAN Controllers, vEdge Devices, and Cisco IOS-XE Devices
- Understand local and central policies
- Learn and master Monitoring and Troubleshooting the SDWAN Solution.

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

- Network Engineers.
- System Administrators
- IT Professionals in Government Agencies
- Technical Support Staff
- Cisco Certified Professionals

Course Duration
5 days
Course Price
$4,395.00 or 43 CLCs
Methods of Delivery
• Instructor Led
• Virtual ILT
• On-Site

Module 1: Catalyst SD-WAN for Government Overview
- SD-WAN Fed-Ramp Overview

Module 2: Cisco SD-WAN Controllers for Government
- Cisco SD-WAN Controller Architecture for Government
- Catalyst SD-WAN Portal for Government
- AWS GOV Cloud Controller Deployment
- On-Prem Controller Deployment in Government
- Create Manager VM Instance on ESXi or KVM
- Initial SD-WAN Manager for Gov Setup
- Create Validator (vBond) VM Instance on ESXi
- Create Controller (vSmart) VM Instance on ESXi
- Add Controllers to Manager in Government
- Enterprise CA Configuration for Government
- Controller High Availability
- Verify Control Plane in Government

Module 3: Catalyst SD-WAN Platforms in Government Environments
- SD-WAN Platform Overview
- SD-WAN cEdge ISR 1k Platforms
- Cisco ISR 4000 Series Router Platforms
- Cisco ASR 1000 Routing Platforms
- Catalyst 8000 Series Router Platforms
- Catalyst 8500 Series Router Platforms
- Catalyst 8300 Series Router Platforms
- Catalyst 8200 Series Router Platforms
- Catalyst 4K/8K SD-WAN Supported Modules
- Catalyst 8000v Series Virtual Routers
- Cellular Gateways for SD-WAN
- SD-WAN WAN Edge High Availability

Module 4: Cisco SD-WAN WAN Edge Deployments for Government
- Adding Devices to the PNP Portal
- Device Initial Bootup and Image Selection
- SD-WAN Zero Touch Provisioning for Gov
- SD-WAN Quick Connect in Government
- Manually Provision SD-WAN IOS-XE
- Verifying WAN Edge Configuration

Module 5: Configuring SD-WAN Manager for Government
- Dashboard Overview and Changes
- SD-WAN Manager Monitoring Dashboard
- SD-WAN Manager Configuration for Government
- SD-WAN Manager Tools for Government
- SD-WAN Manager Maintenance
- Administrative Settings for Government
- Resource Groups In Government Environments
- Users and Groups For Government
- RADIUS and TACACS in Government Environments
- Single Sign-on / IDP Management
- License Management for Government

Module 6: SD-WAN Software Upgrades in Government Environments
- Upgrading the SD-WAN Environment for Government
- Upgrade SD-WAN Controllers in Government
- Software Upgrade Workflow in Government

Module 7: SD-WAN OMP/Fabric for Government
- SD-WAN Fabric Overview and Terminology
- SD-WAN Segmentation for Government
- OMP / TLOCs / Routes
- SD-WAN BFD in Government
- On-Demand Tunnels
- SD-WAN Fabric Verification

Module 8: SD-WAN QoS / QoE in Government Networks
- QoE / QoS Challenges in Government Networks
- Quality of Experience (QoE) / Quality of Service (QoS)
- QoS Configuration Workflow for Government
- Per-Tunnel QoS
- Adaptive QoS for Government1
- Per VPN QoS
- Application Quality of Experience (AppQoE)
- Forward Error Correction (FEC) / Packet Duplication
- TCP Optimization
- Data Redundancy Elimination (DRE) / Lempel-Ziv Compression (LZ)
- SSL Optimization in Government Environments
- Software-Defined Application Visibility and Control (SD-AVC)

Module 9: SD-WAN Security for Government Networks
- Security Overview for Government
- Security Network Analytics (Stealthwatch) Integration
- SD-WAN Fabric Security
- IPSec Key Exchanges in SD-WAN Fabric
- SD-WAN Security Options
- SD-WAN Integrated Security
- SD-WAN Enterprise Firewall
- SD-WAN Identity Firewall
- SD-WAN Intrusion Prevention System
- URL Filtering
- Anti-Malware Protection / Threatgrid
- TLS/SSL Decryption
- Unified Security Policy

Module 10: Creating and Applying SD-WAN Templates and Configuration Groups for Government
- Template Overview for Government
- Feature Templates
- Device Templates for Federal Use
- CLI Templates in Government
- Create Device Templates using Feature Templates
- Attaching Devices to Template
- Configuration Groups Overview
- Creating Configuration Groups
- Deploy Configuration Group Workflow
- View/Edit Configuration Groups

Module 11: SD-WAN IPv6 Integration in the Government Environment
- SD-WAN IPv6 Overview and Terminology

Module 12: SD-WAN Local Policy for Government
- Local Policy Overview
- Local Policy Lists for Government
- Local Data Policies for Government
- Local Data Policy QoS Configuration
- Local Data Policy Access Control Lists
- Localized Control Policy for Government
- Save and Apply Local Policy

Module 13: SD-WAN Central Policies for Government
- Central Policy Overview for Government
- Policy Construction in Government
- Central Control Policy for Government
- Control Policy - Dis-contiguous Data Planes
- Control Policy - Data Center Priority
- Control Policy - VPN Topologies
- Control Policy - VPN Membership Policy
- Control Policy - Application-Aware Routing
- Control Policy - Service Chaining
- Central Data Policies
- Central Data Policies - Use Cases
- Central Data Policies - Cflowd
- Creating Centralized Policies in Government

Module 14: Monitoring & Troubleshooting SD-WAN Government Networks
- SD-WAN Troubleshooting Overview
- SD-WAN Technical Support Access
- Controller Failure Scenarios in Government
- Troubleshooting Controllers
- Troubleshooting Control Connections
- Typical Control Connection Issues
- Troubleshooting Data Plane for Government
- Troubleshooting Routing in Government
- Centralized Policies Troubleshooting
- Packet Forwarding Troubleshooting
- Device Configuration and Upgrades Failure
- vDiagnose - Diagnostic Tool for SD-WAN
- Troubleshooting cEdge for Government
- Troubleshooting using SD-WAN Manager
- Device Troubleshooting in Government
- Using the GUI for cli show command Under Troubleshooting > Real-time
- CLI Troubleshooting for Government
- Network Wide Path Insights
- NetFlow Collectors for Government
- SNMP Overview in Government
- SD-WAN Logs in Government
- SD-WAN Reporting
- SD-WAN Manager APIs & Programmability