

# Implementing Cisco SD-WAN Solutions

Course code: ENSDWI

The Implementing Cisco SD-WAN Solutions (ENSDWI) v2.0 course gives you 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 WAN Edge devices, and how to configure Direct Internet Access (DIA) breakout. The course looks at the different Cisco SD-WAN security options available, such as application-aware enterprise firewall, Intrusion Prevention System (IPS), URL filtering, Cisco Advanced Malware Protection (AMP), Secure Sockets Layer/Transport Layer Security (SSL/TLS) proxy, and Cisco Umbrella® Secure Internet Gateway (SIG)

## Required skills

You should have the following knowledge and skills before attending this course:

- Knowledge of Software-Defined Networking (SDN) concepts as applied to large-scale live network deployments
- Strong understanding of enterprise WAN design
- Strong understanding of routing protocol operation, including both interior and exterior routing protocol operation
- Familiarity with Transport Layer Security (TLS) and IP Security (IPSec)

These recommended Cisco offerings that may help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (
- CCNA®
- )
- Implementing and Operating Cisco Enterprise Network Core Technologies (
- ENCOR
- )

## Teaching materials

Participants will receive access to an electronic version of the study materials.

## Course outline

- Examining the Cisco SD WAN Architecture
- Examining Cisco SD-WAN Deployment Options
- Deploying WAN Edge Devices
- Onboarding WAN Edge Devices with ZTP and PnP
- Using Device Configuration Templates
- Exploring Redundancy, High Availability, and Scalability
- Enabling Service-Side and Transport-Side Routing
- Understanding Cisco SD-WAN Policy Configuration Basics
- Defining Advanced Control Policies
- Implementing AAR
- Examining Direct Internet Access and Cloud Deployment Options
- Exploring Cisco SD-WAN Security
- Designing and Migrating to Cisco SD-WAN
- Performing Cisco SD-WAN Network Management and Troubleshooting
- Examining Cisco SD-WAN Multicast Support

Lab outline:

- Deploy Cisco SD-WAN Controllers
- Add a WAN Edge Router Using ZTP
- Deploy Cisco SD-WAN Device Using Configuration Templates

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# Implementing Cisco SD-WAN Solutions

- Configure Cisco SD-WAN Controller Affinity
- Implement Service Side Routing Protocols
- Implement Transport Location (TLOC) Extensions
- Implement Control Policies
- Implement Data Policies
- Implement Application-Aware Routing
- Implement Branch and Regional Internet Breakouts
- Migrate Branch Sites
- Perform Cisco SD-WAN Software Upgrade

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