



IT091Q: Implementing Cisco SD-WAN Solutions (ENSDWI)

Training Description:

The Implementing Cisco SD-WAN Solutions (ENSDWI) training helps you design, deploy, configure, and manage the Cisco Software-Defined WAN (SD-WAN) solution in a large-scale network, including how to migrate from legacy WAN to Cisco SD-WAN. You will learn best practices for configuring routing protocols in the data center and the branch, and how to implement advanced control, data, and application-aware policies.

This training also covers Cisco SD-WAN deployment and migration options, placement of controllers, how to deploy WAN Edge devices, multicast and quality of service (QoS), how to configure Direct Internet Access (DIA) breakout, and how to deploy a Multi-Region Cisco SD-WAN fabric. You will also learn about the various Application Quality of Experience (AppQoE) traffic optimization capabilities. Finally, the training looks at the different Cisco SD-WAN security options available.

This training will teach you to use Cisco SD-WAN to:

- ✓ Establish a transport-independent WAN for lower cost and higher flexibility.
- ✓ Meet Service Level Agreements (SLAs) for business-critical and real-time applications.
- ✓ Provide secure 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.
- ✓ Describe the Cisco SD-WAN solution and how modes of operation differ in traditional WAN versus Cisco SD-WAN

Training Objectives:

By the end of the training, participants will be able to learn:

- ✓ Describe options for Cisco SD-WAN cloud and on-premises deployment
- ✓ Explain how to deploy WAN Edge devices
- ✓ Compare the Zero-Touch Provisioning (ZTP) and traditional Plug-n-Play (PnP) processes and examine technical specifics for on-premises deployment
- ✓ Describe configuration groups and feature profiles for configuration management
- ✓ Describe device and feature configuration templates
- ✓ Describe options for providing scalability, high availability, and redundancy
- ✓ Explain how dynamic routing protocols are deployed in Cisco SD-WAN environment, on the service side and transport side
- ✓ Describe Cisco SD-WAN policy concepts, which includes how policies are defined, attached, distributed, and applied
- ✓ Define and implement advanced control policies, such as policies for custom topologies and service insertion
- ✓ Describe the Multi-Region Cisco SD-WAN fabric feature
- ✓ Define and implement advanced data policies, such as policies for traffic engineering and QoS
- ✓ Describe the Application Quality of Experience (AppQoE) capabilities available in Cisco SD-WAN
- ✓ Define and implement an application-aware routing (AAR) policy
- ✓ Implement Direct Internet Access (DIA) and Cisco SD-WAN Cloud OnRamp options
- ✓ Describe Cisco SD-WAN security components and integration

- ✓ Describe how to design pure and hybrid Cisco SD-WAN solutions, as well as how to perform a migration to Cisco SD-WAN
- ✓ Describe the different tools and options available for managing a Cisco SD-WAN fabric
- ✓ Describe the different options available for monitoring the Cisco SD-WAN fabric
- ✓ Describe Cisco SD-WAN support for multicast

Training Designed for:

This course is intended for

- Individuals seeking the Cisco Certified Network Professional Enterprise (CCNP) or the Cisco Certified Specialist—Enterprise SD-WAN Implementation
- Pre- and post-sales network engineers involved in the installation, support, and troubleshooting of a Cisco SD-WAN overlay network.

Prerequisites:

- 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)

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Participants must bring their laptops pre-installed with Minitab statistical software. Computers must have administrator privileges to allow participants to install Minitab software and access a USB.

This training course is available upon request in English or Arabic, virtual online live or face to face public/inhouse. Content, location and duration can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

FIVE DAYS:

- ❖ Section 1: Examining the Cisco SD-WAN Architecture
- ❖ Section 2: Examining Cisco SD-WAN Deployment Options
- ❖ Section 3: Deploying WAN Edge Devices
- ❖ Section 4: Managing Device Configuration
- ❖ Section 5: Exploring Redundancy, High Availability, and Scalability
- ❖ Section 6: Enabling Service-Side and Transport-Side Routing

- ❖ Section 7: Understanding Cisco SD-WAN Policy Configuration Basics
- ❖ Section 8: Defining Advanced Control Policies
- ❖ Section 9: Defining Advanced Data Policies
- ❖ Section 10: Implementing Application Quality of Experience
- ❖ Section 11: Implementing AAR
- ❖ Section 12: Examining DIA and Cisco Cloud OnRamp
- ❖ Section 13: Exploring Cisco SD-WAN Security
- ❖ Section 14: Designing and Migrating to Cisco SD-WAN
- ❖ Section 15: Performing Cisco SD-WAN Network Management and Troubleshooting
- ❖ Section 16: Examining Cisco SD-WAN Multicast Support
- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

USD\$ 4,000 (Dubai) - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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