

# **ENWLSD - Designing Cisco Enterprise Wireless Networks (ENWLSD)**

#### **COURSE OVERVIEW:**

The Designing Cisco Enterprise Wireless Networks (ENWLSD) v1.1 course gives you the knowledge you need to design Cisco® wireless networks. The course covers design specifics from scenario design concepts through the installation phase and into post-deployment validation.

This course, including the self-paced material, helps prepare you to take the exam, Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD), which leads to to the new CCNP® Enterprise and Cisco Certified Specialist – Enterprise Wireless Design certifications. The exam will be available beginning February 24, 2020.

#### WHO WILL BENEFIT FROM THIS COURSE?

This course is for wireless engineers who work in the following roles:

- Consulting systems engineer
- Network administrator
- Network engineer
- Network manager
- Sales engineer
- Systems engineer
- Technical solutions architect
- Wireless design engineer
- Wireless engineer

## **PREREQUISITES:**

Before taking this course, you should have:

- General knowledge of networks
- General knowledge of wireless networks
- Routing and switching knowledge

Either of the following combinations of Cisco courses can help you meet these prerequisites:

- Implementing Cisco Wireless Network Fundamentals (WIFUND) and Interconnecting Cisco Networking Devices, Part 1 (ICND1)
- Coming soon: Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR) and Understanding Cisco Wireless Foundations (WLFNDU)

# **COURSE OBJECTIVES:**

After taking this course, you should be able to:

- Describe and implement a Cisco-recommended structured design methodology
- Describe and implement industry standards, amendments, certifications, and Requests For Comments (RFCs)
- Describe and implement Cisco enhanced wireless features
- Describe and implement the wireless design process
- Describe and implement specific vertical designs
- Describe and implement site survey processes
- Describe and implement network validation processes



#### **COURSE OUTLINE:**

### **Describing and Implementing a Structured Wireless Design Methodology**

- Importance of Planning Wireless Design with a Structured Methodology
- Cisco Structured Design Model
- Cisco Design Guides and Cisco Validated Designs for Wireless Networks
- Role of the Project Manager When Designing Wireless Networks

# **Describing and Implementing Industry Protocols and Standards**

- Wireless Standards Bodies
- Institute of Electrical and Electronics Engineers (IEEE) 802.11 Standard and Amendments
- Wi-Fi Alliance (WFA) Certifications
- Relevant Internet Engineering Task Force (IETF) Wireless RFCs
- Practice Activity

# **Describing and Implementing Cisco Enhanced Wireless Features**

- Hardware and Software Choices for a Wireless Network Design
- Cisco Infrastructure Settings for Wireless Network Design
- Cisco Enhanced Wireless Features

# **Examining Cisco Mobility and Roaming**

- Mobility and Intercontroller Mobility in a Wireless Network
- Optimize Client Roaming in a Wireless Network
- Cisco Workgroup Bridge (WGB) and WGB Roaming in a Wireless Network

#### **Describing and Implementing the Wireless Design Process**

- Overview of Wireless Design Process
- Meet with the Customer to Discuss the Wireless Network Design
- Customer Information Gathering for a Wireless Network Design
- Design the Wireless Network
- Deployment of the Wireless Network
- Validation and Final Adjustments of the Wireless Network
- Wireless Network Design Project Documents and Deliverables

## **Describing and Implementing Specific Vertical Designs**

- Designs for Wireless Applications
- Wireless Network Design Within the Campus
- Extend Wireless Networks to the Branch Sites

## **Examining Special Considerations in Advanced Wireless Designs**

- High-Density Designs in Wireless Networks
- Introducing Location and Cisco Connected Mobile Experiences (CMX) Concepts
- Design for Location
- FastLocate and HyperLocation
- Bridges and Mesh in a Wireless Network Design
- Redundancy and High Availability in a Wireless Network



#### **Describing and Implementing the Site Survey Processes**

- Site Survey Types
- Special Arrangements Needed for Site Surveys
- Safety Aspects to be Considered During Site Surveys
- Site Survey Tools in Cisco Prime Infrastructure
- Third-Party Site Survey Software and Hardware Tools

# **Describing and Implementing Wireless Network Validation Processes**

- Post-installation Wireless Network Validation
- Making Post-installation Changes to a Wireless Network
- Wireless Network Handoff to the Customer
- Installation Report

#### **Lab Outline**

- Use Cisco Prime Infrastructure as a Design Tool
- Create a Predictive Site Survey with Ekahau Pro
- Perform a Live Site Survey Using Access Point on a Stick (APoS)
- Simulate a Post-installation Network Validation Survey

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