

Designing Cisco Enterprise Wireless Networks (ENWLSD) v1.1

What you'll learn in this course

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 the **CCNP® Enterprise** and **Cisco Certified Specialist – Enterprise Wireless Design** certifications. This course also earns you 40 Continuing Education (CE) credits towards recertification.

Course duration

- Instructor-led training: 5 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 5 days of web-based classes with hands-on lab practice
- E-learning: Equivalent of 5 days instruction with video and hands-on lab practice

How you'll benefit

This course will help you:

- Gain the knowledge you need to plan advanced designs of Cisco wireless products
- Qualify for professional-level job roles in wireless networking
- Prepare for the **Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD)** exam.
- Earn 40 CE credits toward recertification

What to expect in the exam

This course will help you prepare for the **Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD)** exam. This exam tests your knowledge of wireless network design, including site surveys, wired and wireless infrastructure, mobility, and WLAN high availability.

After you pass **300-425 ENWLSD**:

- You earn the **Cisco Certified Specialist – Enterprise Wireless Design** certification.
- You satisfy the concentration requirement for the new **CCNP Enterprise** certification. To complete your **CCNP Enterprise** certification, pass the Enterprise core exam, **Implementing Cisco Enterprise Network Core Technologies (350-401 ENCOR)**.

Who should enroll

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

How to enroll

E-learning

- To buy a single e-learning license, visit the [Cisco Learning Network Store](#)
- For more than one license, or a learning library subscription, contact us at learning-bdm@cisco.com

Instructor-led training

- Find a class at the [Cisco Learning Locator](#)
- Arrange training at your location through [Cisco Private Group Training](#)

Technology areas

- Networking
- Wireless

Course details

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

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 and Operating Cisco Enterprise Network Core Technologies (ENCOR)** and **Understanding Cisco Wireless Foundations (WLFNDU)**

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

- Review Cisco Enhanced Wireless Features
- Design a Wireless Network
- Design a Wireless Network for a Specific Vertical
- Design a Wireless Network that Extends Beyond the Campus (ILT output)
- Use Cisco Prime Infrastructure as a Design Tool
- Create a Predictive Site Survey with Ekahau Pro
- Review a Live Site Survey Using Access Point on a Stick (APoS)
- Simulate a Post-installation Network Validation Survey




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