

Course Outline

Designing Cisco Enterprise Wireless Networks Course ENWLSD: 5 days Instructor Led

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About this course

The Designing Cisco Enterprise Wireless Networks (ENWLSD) v1.1 is a 5-day course that 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.

Audience profile

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

At course completion

After completing this course, students will 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

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Module 1: 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

Module 2: 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

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- Relevant Internet Engineering Task Force (IETF) Wireless RFCs
- Practice Activity

Module 3: 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

Module 4: 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

Module 5: 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

Module 6: Describing and Implementing Specific Vertical Designs

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

Module 7: 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

Module 8: 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

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Module 9: 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