THINQTANK® LEARNING

CISCO CERTIFIED NETWORK PROFESSIONAL ENTEPRISE WIRELESS

Designing Cisco Enterprise Wireless Networks (ENWLSD)
Implementing Cisco Enterprise Wireless Networks (ENWLSI)

Our Learning Exclusive

- Custom exam prep software and materials
- Exam delivery in classroom with 98% success
- Course specific thinQtank® Learning publications to promote fun exciting learning
- Extended hours of training including immersive hands-on exercises
- WE DO NOT "TEACH THE TEST" We always deliver valuable hands-on experience
- Receive all reading material and study guides when you register
- All courses taught by CCIE expert instructors

Course Duration

- Nine days of instructor-led learning
- Five days ENWLSD and four days ENARSI
- 70% lecture, 30% hands-on labs

Prerequisites

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

Target Audience

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

Exam Information

- 300-425 – Designing Cisco Enterprise Wireless Networks (ENWLSD)
- 300-430 – Implementing Cisco Enterprise Wireless Networks (ENWLSI)

Delivery Methods

- Instructor-Led Training
- Immersive Live-Online Training
- On-Site and Custom Delivery

Exclusive Tools and Learning Package

- Comprehensive video training package
- Virtual builds of all labs and hand-on learning objectives so learners can continue their hands on experience after the completion of the course
- Industry unique training course to achieve multiple certifications in one training camp

Course Overview

thinQtank® Learning is offering a unique nine-day training camp comprised of five days of instructor-led learning for Designing Cisco Enterprise Wireless Networks (ENWLSD) and four days of instructor-led learning for Implementing Cisco Enterprise Wireless Networks (ENWLSI). As with all of our Cisco Training Experiences – exams are delivered in the classroom.

ENWLSD

This portion of the course prepares you to take the Designing Cisco Enterprise Wireless Networks (300-425 ENWLSD) exam which leads to the new CCNP Enterprise and Cisco Certified Specialist – Enterprise Wireless Design certifications. Students will gain the knowledge needed to plan advanced designs of Cisco wireless products and qualify for professional-level job roles in wireless networking.

ENWLSI

This portion of the course provides students the knowledge to implement and secure a wireless network infrastructure and use Cisco Identity Service Engine (ISE), Cisco Prime Infrastructure (PI), and Cisco Connect Mobile Experience to monitor and troubleshoot network issues.

The course provides hands-on labs to reinforce concepts including deploying Cisco Prime Infrastructure Release 3.5, Cisco Catalyst 9800 Wireless Controller Release, Cisco IOS XE Gibraltar 16.10, Cisco Digital Network Architecture (Cisco DNA) Center Release 1.2.8, Cisco Connected Mobile Experiences (CMX) Release 10.5, Cisco Mobility Services Engine (MSE) Release 8.0 features, and Cisco ISE Release 2.4.

Students will use Cisco Identity Services Engine, Cisco Prime Infrastructure, and Cisco Connect Mobile Experience to monitor and troubleshoot network issues

And students can validate your knowledge and prepare to take the Implementing Cisco Enterprise Wireless Networks (300-430 ENWLSI) certification exam.

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Course Objectives ENWLSD

After taking this course, students 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 Objectives ENWLSI

After taking this course, students should be able to:

- Implement network settings to provide a secure wireless network infrastructure
- Troubleshoot security issues as they relate to the wireless network infrastructure
- Implement a secure wireless client and troubleshoot wireless client connectivity issues
- Implement and troubleshoot QoS in wireless networks
- Implement and troubleshoot advanced capabilities in wireless network services

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ENWLSD Course Modules

1

- Describing and Implementing a Structured Wireless Design Methodology
  - Importance of Planning Wireless Design with a Structured Methodology
  - Describe the Cisco PPDIOO structured design model
  - Cisco Structured Design Model
  - Cisco Design Guides and Cisco Validated Designs for Wireless Networks
  - Role of the Project Manager When Designing Wireless Networks

2

- Describing and Implementing Industry Protocols and Standards
  - Wireless Standards Bodies
  - IEEE 802.11 Standard and Amendments
  - WFA Certifications
  - Relevant IETF Wireless RFCs
  - Practice Activity

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
  - Activity 1: Review Cisco Enhanced Wireless Features

4

- Examining Cisco Mobility and Roaming
  - Mobility and Intercontroller Mobility in a Wireless Network
  - Optimize Client Roaming in a Wireless Network
  - WGB and WGB Roaming in a Wireless Network

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
  - Activity 2: Design a Wireless Network

6

- Describing and Implementing Specific Vertical Designs
  - Designs for Wireless Applications
  - Wireless Network Design Within the Campus
  - Extend Wireless Networks to the Branch Sites
  - Activity 3: Design a Wireless Network for a Specific Vertical
  - Activity 4: Design a Wireless Network That Extends Beyond the Campus

7

- Examining Special Considerations in Advanced Wireless Designs
  - High-Density Designs in Wireless Networks
  - Introducing Location and CMX Concepts
  - Design for Location
  - FastLocate and HyperLocation
  - Bridges and Mesh in a Wireless Network Design
  - Redundancy and High Availability in a Wireless Network

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
  - Discovery 5: Use Cisco Prime Infrastructure as a Design Tool
  - Discovery 6: Create a Predictive Site Survey with Ekahau Pro
  - Discovery 7: Review a Live Site Survey Using AP on a Stick

9

- Describing and Implementing Wireless Network Validation Processes
  - Postinstallation Wireless Network Validation
  - Making Postinstallation Changes to a Wireless Network
  - Wireless Network Handoff to the Customer
  - Installation Report
  - Discovery 8: Simulate a Postinstallation Network Validation Survey

ENWLSD Labs and Demonstrations

- 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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ENWLSD Course Topics

- Securing and Troubleshooting the Wireless Network Infrastructure
- Implementing and Troubleshooting Secure Client Connectivity
- Implementing and Troubleshooting Quality of Service (QoS) in Wireless Networks
- Implementing and Troubleshooting Advanced Wireless Network Services

ENWLSI Labs and Demonstrations

- Lab Familiarization (Base Learning Lab)
- Configure Secure Management Access for Cisco Wireless LAN Controllers (WLCs) and Access Points (APs)
- Add Network Devices and External Resources to Cisco Prime Infrastructure
- Capture a Successful AP Authentication
- Implement Authentication, Authorization, and Accounting (AAA) Services for Central Mode WLANs
- Implement AAA Services for FlexConnect Mode Wireless LANs (WLANs)
- Configure Guest Services in the Wireless Network
- Configure Bring Your Own Device (BYOD) in the Wireless Network
- Capture Successful Client Authentications
- Configure QoS in the Wireless Network for Voice and Video Services
- Configure Cisco Application Visibility and Control (AVC) in the Wireless Network
- Capture Successful QoS Traffic Marking in the Wireless Network
- Configure, Detect, and Locate Services on the Cisco CMX
- Identify Wireless Clients and Security Threats

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