Designing Cisco Wireless Enterprise Networks v1.1 (WIDESIGN)

Course Summary

Description

The goal of WIDESIGN is to provide students with a new perspective on designing wireless networks. Students will learn how to design a Cisco wireless network from initial customer contact to postdeployment activities. Students will use tools to assist in wireless design and management. WIDESIGN includes student labs that reinforce design concepts. WIDESIGN is part of the CCNP Wireless Track.

Course kits are available in digital formal only. The digital version is designed for online use only, not for printing.

Objectives

After taking this course, students will be able to:

- Determine customer Wi-Fi design process
- Design for data coverage
- Design for voice and real-time applications
- Design for location and Cisco CMX
- Design for Wi-Fi beyond the enterprise campus
- Describe how to conduct a site survey

Topics

- Determine Customer Wi-Fi Design Process
- Design for Data Coverage
- Design for Voice and Real-Time Applications
- Design for Location and Cisco CMX
- Design for Wi-Fi Beyond the Enterprise Campus
- Conduct a Site Survey

Audience

This course is designed for Wireless Network Engineers with at least three years of experience in the networking field.

Prerequisites

In order to fully benefit, from this course, it is strongly recommended that students have successfully completed the ICND1 course and the WIFUND course.

It is also strongly recommended that students have basic knowledge of the following:

- Cisco Prime Infrastructure
- Cisco Identity Services Engine
- Metageek Channelizer Software
- Voice Signaling Protocol
- Basic QoS
- Application Visibility and Control
- LAN switching

Duration

Five days

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Course Outline

I. Determine Customer Wi-Fi Design Process
- A. Determining Customer Design Technical and Business Objectives
- B. Determining the Type of Wireless Design
- C. Gathering Existing Documentation and Important Information
- D. Meeting with the Customer

II. Design for Data Coverage
- A. Describing Common Business and Technical Drivers
- B. Describing Cisco Capabilities
- C. Planning and Designing for RF
- D. Describing Deployment Models
- E. Describing Campus Considerations

III. Design for Voice and Real-Time Applications
- A. Describing Common Business and Technical Drivers
- B. Describing Cisco Capabilities
- C. Describing RF Planning and Design
- D. Describing Cisco AVC and QoS

IV. Design for Location and Cisco CMX
- A. Describing Common Business and Technical Drivers
- B. Describing Cisco Capabilities
- C. Describing RF Planning and Design
- D. Cisco CMX Ecosystem Analytics and Development

V. Design for Wi-Fi Beyond the Enterprise Campus
- A. Describing Common Business and Techncial Drivers
- B. Describing Cisco Capabilities
- C. Describing RF Planning and Design

VI. Conduct a Site Survey
- A. Describing Access and Safety Concerns
- B. Describing the Initial Evaluation
- C. Describing Predictive Planning
- D. Describing the In-Depth Site Survey
- E. Describing the Postdeployment Survey

VII. Labs
- A. Project Kickoff
- B. Base Wi-Fi Design Recommendations
- C. Voice and Real-Time Application Wi-Fi Design Recommendations
- D. Location and Cisco CMX Wi-Fi Design Recommendations
- E. Outdoor and High-Density Wi-Fi Design Recommendations
- F. Estimating the Number of APs Using Cisco Prime Infrastructure as a Planning Tool
- G. Conducting a Predictive Site Survery with Ekahau Site Survey Pro
- H. Simulating a Layer 1 Sweep with Cisco Spectrum Expert
- I. Simulating a Layer 1 Sweep with Metageek Chanalyzer
- J. After Implementation

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