

Deploying Advanced Cisco Wireless LANs v1.2 (WDAWL)

Course Summary

Description

The Deploying Advanced Cisco Wireless LANs (WDAWL) hands-on course builds upon the basic deployments course by presenting students with more challenging real-world deployments such as client mobility between subnets, high client density deployments, and an introduction to mesh network concepts. Students will be able to make network design decisions about, configure, and troubleshoot WLANs that encounter these challenges. The course is updated through Wireless LAN Controller and AP code release 8.1, which includes new in-demand features such as 802.11ac design awareness, iBeaconing, Apple 802.11v integration, AVC enhancements, FlexConnect enhancements, ease-of-use enhancements, as well as many more customer-requested enhancements.

This course's student kit material is in a digital format (e-kit), which is accessed from the Cisco Learning Network Space. A CCO ID is required to log in. Remote Lab Guides are emailed to you in PDF format. The PDF version will be completely printable. It is recommended that you print your remote lab guide before class begins.

Objectives

At the end of this course, students will be able to:

- Describe the mechanisms and messaging used in a Unified Wireless architecture that allows the client to change AP association, while maintaining the current session and IP addressing.
- Discuss the challenges faced in providing a quality user experience in a high-density wireless network deployment scenario.
- Differentiate the operational characteristics of, and implement, a wireless MESH architecture.

Topics

- Client Mobility Between Subnets
- Network Efficiency
- High-Density Deployment Challenges
- Introduction to Mesh Network
- Wireless Guests Networks
- Wireless High Availability
- Implementing IPv6 Support
- Appendix A: Service Provider and PMIPv6

Audience

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 should have:

- Prior completion of Defining Cisco Wireless LAN Essentials (WLE) eLearning course
- Cisco CCNA® or equivalent work experience
- Familiarity with Microsoft Windows and Windows networking
- Deploying Cisco Basic Wireless LANs v1.2 (WDBWL)

Duration

Three days

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Course Outline

- I. *Client Mobility Between Subnets*
 - A. Understanding Same Subnet Roaming
 - B. Lab 1: Connecting to the Remote Lab
 - C. Understanding Inter-subnet Mobility
 - D. Understanding Advanced Mobility Issues
 - E. Lab 2: Configuring QoS on the Controller

- II. *Network Efficiency*
 - A. Configuring Quality of Service
 - B. Implementing Video Over Wi-Fi
 - C. Implementing VideoStream in a FlexConnect Deployment
 - D. Integrating the WLC With MS Lync SDN
 - E. Lab 2-1: Monitoring WLC QoS on the Switch Infrastructure

- III. *High-Density Deployment Challenges*
 - A. Understanding the Effects of Client Density on a Wireless Network
 - B. Planning for Areas of High Client Density

- IV. *Introduction to Mesh Network*
 - A. Describing Wireless Mesh Networks – Overview
 - B. Implementing Wireless Mesh Networks Overview

- V. *Wireless Guests Networks*
 - A. Providing Advanced Guest Access
 - B. Local Policies and Client Profiling
 - C. Implementing CMX Visitor Connect
 - D. Lab 3-1: Implementing CMX Visitor Connect
 - E. Lab 3-2: Implementing Social Auth CMX Visitor Connect

- VI. *Wireless High Availability*
 - A. Describing Wireless High Availability
 - B. Enhancing Wireless High Availability

- VII. *Implementing IPv6 Support*
 - A. Configuring Clients for IPv6
 - B. Lab 4-1: Configuring IPv6
 - C. Configuring the Infrastructure for IPv6
 - D. Lab 4-2: IPv6 First Hop Security Configuration (Optional)

- VIII. *Appendix A: Service Provider and PMIPv6*