

CUWNBC - Cisco Unified Wireless Networking Bootcamp: Deploying Cisco Wireless LANs Basic and Advanced (WDBWL / WDAWL)

Course Summary

Description

Cisco Unified Wireless Networking Bootcamp (CUWNBC) combines WDBWL (Deploying Basic Cisco Wireless LANs) and WDAWL (Deploying Advanced Cisco Wireless LANs) into a cohesive five day delivery. CUWNBC presents students with challenging real-world deployments such as client mobility between subnets, high client density deployments, and mesh network deployments. Students will be trained on how to make network design decisions about, configure, and troubleshoot WLANs with these challenges. The format of the course allows students and the instructor to explore realistic use cases and best practices around more challenging deployment scenarios. The course is written at software code level 7.5.

WDBWL (Deploying Basic Cisco Wireless LANs) is the first 3 days of training and WDAWL (Deploying Advanced Cisco Wireless LANs) is the last two days of class. If students would like to attend WDBWL or WDAWL only - please contact us for scheduling and pricing options!

Objectives

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

- Successfully plan, install, configure, troubleshoot, monitor and maintain basic Cisco Wireless LAN solutions in a customer enterprise environment
- Configure autonomous, unified, and FlexConnect architectures
- Configure all base feature sets, including wireless security
- Administer the WLAN network
- Maintain and troubleshoot basic wireless networks
- Describe the steps involved in client mobility at layer 2 and the differences involved in client mobility at layer 3
- 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

- Cisco Wireless LAN Essentials Refresher
- Pre-Deployment Planning
- Autonomous Deployments
- Unified Deployments
- FlexConnect Deployments
- Wireless LAN Maintenance and Troubleshooting
- Client Mobility
- High Density Deployment Challenges
- Implementing Mesh Network

Audience

This course is intended for IT engineers or administrators who need to know the fundamentals about planning, installing, configuring, troubleshooting, and maintaining a basic Cisco Wireless LAN infrastructure. This includes installers, SEs, Field Engineers, technical support professionals, network managers, security team members, and administrators.

Prerequisites

- Prior to taking this course, it is recommended that students have the following knowledge and skills:
- Prior completion of Defining Cisco Wireless LAN Essentials course or equivalent work experience (recommended)
- Basic networking skills
- RF/Wireless field experience (helpful)

Duration

Five days

Due to the nature of this material, this document refers to numerous hardware and software products by their trade names. References to other companies and their products are for informational purposes only, and all trademarks are the properties of their respective companies. It is not the intent of ProTech Professional Technical Services, Inc. to use any of these names generically

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Course Outline

I. Cisco Wireless LAN Essentials Refresher

- A. High level review of prerequisite course - Defining Cisco Wireless LAN Essentials

II. Pre-Deployment Planning

- A. Successful Wireless Deployments and Pre-deployment Planning
- B. Cisco WLAN Professional Services
- C. Spectrum Expert
- D. PI Planning tools

III. Autonomous Deployments

- A. Easy Setup GUI Interface
- B. Basic Setup via CLI
- C. Access Point Modes
- D. Bridge Modes
- E. Non-Client serving Modes

IV. Unified Deployments

- A. Initial controller Setup, and configure basic settings
- B. Modes of operation available for a unified access point
- C. Mechanisms by which an AP associates to a WLC
- D. User Interfaces to the System
- E. Radio Resource Management and CleanAir
- F. Administering WLANs and AP Groups
- G. Configuring Quality of Service
- H. IPv6 Support
- I. Identify and Configure the Wireless LAN
- J. Security Parameters
- K. General Administration
- L. Guest Access

V. FlexConnect Deployments

- A. Benefits and Limitations of FlexConnect Architecture
- B. Operational Differences between
- C. FlexConnect and Unified Architectures

VI. Wireless LAN Maintenance and Troubleshooting

- A. Routine Maintenance
- B. Policy Configuration and Management
- C. Gathering Data
- D. Troubleshooting in a Cisco Unified Wireless Network

WDAWL Outlines: Deploying Advanced Cisco Wireless LANs

VII. Client Mobility

- A. Same Subnet Roaming
- B. Inter-subnet Mobility

VIII. High Density Deployment Challenges

- A. Effects of Client Density on a Wireless Network
- B. Planning for Areas of High Client Density

IX. Implementing Mesh Network

- A. Describe Wireless Mesh Networks
- B. Mesh Network Formation Process
- C. Implementing a Mesh Network for the Enterprise
- D. Configuring Advanced Mesh Features
- E. Troubleshooting a Mesh Network

WDAWL Lab:

- Examine the Relationship between Duty Cycle, Data Rates and Channel Utilization
- Implementing and Indoor Wireless Mesh Network