



Cisco Wireless LAN Fundamentals

Length
4 days

Format
Lecture/lab

Version
1.0

Course Description

This course examines the configuration and management of autonomous and lightweight wireless networks based on Cisco wireless solutions.

Who Should Attend

Cisco Wireless LAN Fundamentals is targeted to system engineers and field engineers working in the wireless field who possess wireless basics and seek to add more-advanced concepts to their knowledge. In addition, the course is tailored to network administrators, network engineers, network managers, and technical sales personnel who want to offer their customers the most innovative and comprehensive suite of WLAN solutions in the industry.

Recommended Prerequisites

- Fundamental knowledge of wireless network technologies terms and concepts

Related Courses

- Aironet Wireless LAN Advanced Topics (AWLAT)
- Cisco Unified Wireless Networking (CUWN)
- Deploying Wireless Services with the Cisco Catalyst 6500 WLSM (CAT6K-WLSM)
- Aironet Wireless LAN Fundamentals and Site Survey (AWFSS)
- Wireless LAN Solutions Engine (WLSE)

CWLF

Learning Objectives

After completing this course, you will be able to:

- Describe detailed modulation and spreading techniques and how they are used with various antennas
- Describe detailed technical features, functions, and benefits of the WLAN product offerings available from Cisco
- Define concepts and describe considerations for deploying wireless bridges
- Configure a Cisco client card with Cisco utilities
- Configure the core access point and bridge
- Configure an advanced featured WLAN using a Cisco wireless LAN controller
- Implement a WLAN management solution available from Cisco
- Perform an initial configuration of a WLAN
- Secure a WLAN using security methods and products available from Cisco
- Describe the requirements necessary for deploying and performing a site survey
- Describe the steps, concepts, and tools available while performing a site survey



Learning Solutions

Cisco Wireless LAN Fundamentals

Module 1: Cisco Aironet WLAN Overview

Lesson 1: Wireless LAN (WLAN) Radio Technologies

Lesson 2: Antenna Concepts

Module 2: Cisco Aironet WLAN Products

Lesson 1: Wireless LAN Access Points

Lesson 2: Bridges, Antennas, and Accessories

Lesson 3: WLAN Clients

Lesson 4: WLAN Network Management, Control, and Services

Lesson 5: Access Point Enterprise-Class Features

Module 3: Wireless Bridges

Lesson 1: Wireless Bridges and Alternatives

Lesson 2: Roles in Radio Network

Lesson 3: Bridge Path Information

Module 4: Aironet Desktop Utility

Lesson 1: Configuration Utilities

Lesson 2: Installing and Configuring Aironet Desktop Utility

Module 5: Core Access Point and Bridge

Lesson 1: Basic Configuration

Lesson 2: Describing Cisco Unified Wireless Network Distribution Solution

Lesson 3: Setting up Autonomous Access Point Hardware

Lesson 4: Configuring the Access Point

Lesson 5: Managing the Access Point

Lesson 6: Setting up and Configuring the Bridge

Module 6: Advanced Feature Set Product Administration

Lesson 1: Introducing the Cisco Wireless Advanced Feature Set Products and Administrations

Lesson 2: Defining Roaming Concepts

Lesson 3: Configuring the Network

Module 7: WLAN Management Solutions

Lesson 1: Introducing CiscoWorks Wireless LAN Solution Engine

Lesson 2: Introducing the Cisco Wireless Control System (WCS)

Lesson 3: Introducing Cisco Wireless Location Appliance

Lesson 4: Identifying Other WLAN Management Tools

Module 8: Cisco Wireless Mesh Network Installation

Lesson 1: Introducing Wireless Mesh Networking

Lesson 2: Introducing the Cisco Aironet

Lesson 3: 1500 Series Lightweight Outdoor Mesh Access Point

Module 9: Security

Lesson 1: Introducing 802.11 Security

Lesson 2: Defining Vulnerabilities of WLAN Security

Lesson 3: Introducing the Cisco Wireless Security Suite

Lesson 4: Configuring Cisco Secure ACS

Lesson 5: Configuring Encryption and Authentication on Autonomous Access Points

Lesson 6: Configuring Encryption and Authentication on Lightweight Access Points

Module 10: Site Survey Preparation and Techniques

Lesson 1: Determining the Deployment Requirements for a Site Survey

Lesson 2: Performing a Site Survey

Module 11: Manual Site Survey Tools and Utilities

Lesson 1: Identifying Site Survey Tools

Lesson 2: Using Site Survey Utilities

Lesson 3: Using AirMagnet Site Survey Tool for a Manual Survey



Cisco Wireless LAN Fundamentals

Course Labs

Lab 1: Outdoor Bridge Range Calculation
Utility

Lab 2: Client Configuration

Lab 3: Set Radio SSIDs, Channel, and
Data Rates for an Access Point

Lab 4: Restore the Access Point to Default
Data Rates

Lab 5: Test Throughput to a Lab Server
using FTP

Lab 6: Airspace System Setup

Lab 7: Configuring the Controller via the
Web-Browser

Lab 8: Configure the Controller for Open
Authentication

Lab 9: Distributed WLAN Solution

Lab 10: CiscoWorks WLSE Auto-Discovery
via WDS

Lab 11: Configure Wireless Control System
for Maps and Access Point Placement

Lab 12: Configure the Wireless Client Card
and Access Point for WEP

Lab 13: Configure the Access Point and
Cisco Secure for LEAP

Lab 14: Configure the Access Point for
LEAP with WPA Encryption

Lab 15: Configure the WLAN Controller for
WPA2 EAP FAST Authentication



Learning
Solutions