

Cisco® Deploying Basic Cisco® Wireless LANs v1.2 (WDBWL)

Course Overview

This is a 3-day class

This course is designed with the goal of providing learners with the knowledge and skills to successfully plan, install, configure, troubleshoot, monitor, and maintain basic Cisco Wireless LAN solutions in an enterprise customer environment.

Who Should Attend

Cisco Installers, Channel Installers, Customer Installers, Cisco System Engineers, Channel System Engineers, Cisco Field Engineers, Channel Field Engineers, Customer Field Engineers, Cisco Technical Support/TAC, Channel Technical Support/TAC, Customer Technical Support/TAC, Cisco Technical Marketing Engineers, Cisco Network Consulting Engineers

Course Objectives

Students should be able to discuss, plan, install, configure, monitor, and troubleshoot a basic Cisco wireless LAN in an enterprise environment.

Course Outline

1 Unified Deployments

Lesson 1: Performing the Initial Wireless LAN Controller Configuration
Initial Setup
Web-Based Setup
Connect to the WLC Web Interface
Lesson 2: Describing Unified AP Modes of Operation
AP Operational Modes
AP Local Mode
AP Monitor Mode
AP Rogue Detector Mode
AP Sniffer Mode
AP Bridged Mode
AP SE-Connect Mode
AP Flex-Connect Mode
OfficeExtend
Lesson 3: Understanding the AP Association Process
AP Discovery and Join Process
AP Join Order
AP Failover process
High-Availability Design Options
Lesson 4: User Interfaces to the System
Cisco WLC Settings
Cisco WLC CLI Settings
Using the Cisco Prime Infrastructure for WLC Configuration
Lesson 5: Radio Resource Management and CleanAir

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Split MAC Architecture
Radio Resource Management
Cisco CleanAir Implementation
Cisco CleanAir Concepts
Cisco CleanAir Modes of Operation
Air Quality Configuration and Reporting
Cisco CleanAir-Enabled RRM
Lesson 6: Administering WLANs and AP Groups
Wireless LANs
Passive Clients
AP Groups
RF Profiles
Lesson 7: Configuring Mobility Groups and Roaming
The Terminology of Roaming
Wireless Roaming Concepts
Auto-anchor Mobility
Static IP Mobility
Lesson 8: Configuring Security Options
Configuring the Local Database
MAC Filtering
Access Control Lists
Peer-to-Peer Blocking Mode
Configuring RADIUS Authentication
Local EAP
LDAP Configuration
Controlling AP Association via AP Authentication
Cisco TrustSec for Wireless
Management Frame Protection
Wi-Fi Direct
Security Policy Logic
Configuring WLANs with Enterprise Security
Lesson 9: Performing General Administration
Network Routes
Cisco Discovery Protocol
DHCP Services
Local Policies
Multicast services
Evolving Need for Video over WLAN
Cisco VideoStream Technology
mDNS aka Bonjour Gateway
Application Visibility and Control
Lesson 10: Providing Guest Access
Defining Guest Access
Traditional Guest Access Methods
Methods for providing Guest Access
Configuring Guest Access

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2 Deploying The FlexConnect Architecture

Lesson 1: FlexConnect Deployments

Standalone Mode

Local Authentication

Split Tunneling

Lesson 2: FlexConnect Configuration and Operation

Fast Roaming

AAA Override

Peer-to-Peer

FlexConnect ACLs

FlexConnect Groups

3 Maintaining and Troubleshooting a Cisco Wireless LAN

Lesson 1: Performing Routine Maintenance

Locate Key Controller information

Locate Key AP Information

Upgrade Controller Code

AP Pre-Image Download

WLC Administration

AP Administration

Lesson 2: Configuring Policies and Management

Wireless Protection Policies

Managing Rogue Devices

Intrusion Detection Management

Aggressive Load Balancing

Monitoring Clients

Verifying Client Connectivity

Lesson 3: Gathering Data

Gathering Wireless Network Performance Data

Using the AP to Gather Packets

Message Logging

WLC Statistics

Monitoring Clients

Lesson 4: Troubleshooting in a Cisco Unified Wireless Network

Define a methodology

AP association troubleshooting

Analysis tools available in a Cisco Unified Wireless Network

Using debug and show commands

4 Lab Outline

Lab 1-1 Perform the initial controller configuration using the CLI

Lab 1-2: Unified AP Modes of Operation

Lab 1-3: AP Association Options

Lab 1-4: Controller Web Interface

Lab 1-5: RRM and CleanAir Configuration

Lab 1-6: Configuring Security parameters on the WLC

Lab 1-7: VideoStream and mDNS Configuration (Optional)

Lab 1-8: Configuring Guest Access and Web Authentication

Lab 2-1: FlexConnect Local Switching

Lab A-1: IPv6 First Hop Security Configuration (Optional)