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Cisco Wireless LAN Fundamentals v2.0

Keyword: CWLF

4 Days – List Price \$2,795

Course Description

Do you want to learn how to configure and manage standalone and controller-based wireless network or are you preparing yourself for a Wireless LAN Certification? Then this four-day course is the perfect choice. A comprehensive blend of instructor-led training as well as instructor assisted, hands-on labs ensure that you thoroughly understand the concepts of standalone and controller-based access points and controllers, network management solutions and security. **GigaWave's version provides updated hands-on labs which cover the controller firmware release 4.2 as well as the Cisco WCS software release 4.2. In addition, Cisco Access Control Server (ACS) is used to support authenticating clients via EAP-FAST, EAP-PEAP, EAP-TLS or Cisco LEAP.**

Laptops are provided to participate in the hands-on labs. If you desire to use your own laptop, please bring a laptop computer with an available 32-bit CardBus slot and an Ethernet port as well as an internal wireless NIC, 802.11a/b/g. The laptop's operating systems must be either MS Windows 2000 (SP4) or XP. The laptop should also have a 9-pin serial port or USB to serial adapter. **IN ADDITION**, you will need administrator rights to the laptop to install drivers for the wireless client used in class.

You Learn...

After completing this course, the student should be able to:

- Describe detailed modulation and spreading techniques and how it is used with various antennas
- Describe detailed technical features, functions, and benefits of the Cisco wireless LAN products and how they compare to each other
- Describe Aironet Desktop Utility and the Cisco Secure Services Client
- Define the concept of using wireless devices to create a WLAN using the standalone products
- Define concepts of using wireless devices to create a Layer 2 bridge
- Configure a controller-based wireless network using a Cisco wireless LAN controller
- Describe the requirement necessary for deployment and performing a site survey
- Describe the steps, concepts, and tools available while performing a site survey

Who Would Benefit

The Cisco Wireless LAN Fundamentals is targeted to internal Cisco System Engineers, Field Engineers and channel external system engineer's 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.

Prerequisite

There are no recommended prerequisites for this course

Follow-On Courses

- Cisco Unified Wireless Networking (CUWN)
- Cisco Wireless LAN Advanced Topics (CWLAT)
- Cisco Wireless Networking Site Survey (CWNSS)
- Cisco Wireless LAN Security (CWLS)
- Cisco Wireless Mesh Networking (CWMN)
- Cisco Advanced Wireless Bridging Lab (CAWBL)

- Cisco Voice over Wireless LAN (VoWLAN)

Course Content

Module 0 – Introduction

Module 1 – Wireless Technology Overview

- Describing WLAN Radio Technologies
- Defining Antenna Concepts
- 802.11 Design Concepts
- Introducing 802.11 Security

Module 2 – Cisco WLAN Products

- Describing Wireless LAN Access Points, Bridges and Accessories
- Describing WLAN Clients
- Describing WLAN Controllers and Routers
- Describing Network Management
- Introducing Access Point Enterprise-Class Features

Module 3 – Cisco Wireless Clients and Supplicants

- Installing and Configuring Aironet Desktop Utility
- Installing and Configuring Cisco Secure Services Client
- Client Configuration (Lab 3-1)

Module 4 – Standalone Access Point Administration

- Describing the Standalone Solution
- Setting up Standalone Access Point Hardware
- Configuring the Standalone Access Point
- Managing the Standalone Access Point
- Configuring the Standalone Access Points for Security
- Introducing CiscoWorks WLAN Solution Engine
- Set Radio SSIDs, Channel, and Data Rates (Lab 4-1)
- Restore the Access Point to Default Data Rates (Lab 4-2)
- Test Throughput to a Lab Server Using FTP (Lab 4-3)
- Configure the Access Point for LEAP with WPA Encryption (Lab 4-4)

Module 5 – Wireless Bridges

- Implementing Wireless Standalone Bridges
- Choosing Roles in Radio Network
- Determining Bridge Path Information
- Setting up and Configuring the Cisco Standalone Bridge
- Outdoor Bridge Range Calculation Utility (Lab 5-1)

Module 6 – Cisco Unified WLAN Administration

- Introducing the Cisco Controller-Based Products and Configuration
- Explaining Roaming Concepts
- Configuring a WLAN Controller
- Configuring Secure Authentication
- Introducing the Cisco Wireless Control System
- Cisco Wireless LAN Controller System Setup (Lab 6-1)
- Configuring the Controller via the Web-Browser (Lab 6-2)
- Configuring Web Authentication (Lab 6-3)
- Configuring 802.1X PEAP (MSCHAP V2) Authentication (Lab 6-4)
- Configuring WPA Encryption w/ 802.1X LEAP Authentication (Lab 6-5)
- Configuring WPA2 Encryption w/ 802.1X EAP-FAST Authentication (Lab 6-6)

Module 7 – Site Survey Preparation and Techniques

- Determining the Deployment Requirements for a Site Survey
- Performing a Site Survey
- Gathering the Deployment Requirements for a Voice Site Survey

Module 8 – Tools and Utilities

- Identifying Site Survey Tools
- Using Site Survey Utilities
- Identify other WLAN Management Tools