



To register for this course, go to [www.giga-wave.com](http://www.giga-wave.com), or call 210-375-0085

## Cisco Airespace Installation, Administration and Maintenance v2.0

Keyword: CAIAM

3 Days – List Price \$1,695

### Course Description

CAIAM 2.0 is a detailed study of Cisco's Airespace® solution. Through this course, you will gain experience planning, deploying and managing enterprise WLANs using the Airespace solution.

After a quick overview of the Cisco's Airespace® solution, the course focuses on covering the components, features and deployment of the system. All of this is reinforced with hands-on configuration labs covering such topics as CLI and Switch Web configurations, Open & Web Authentication configurations and end to end 802.1x PEAP-EAP-MSCHAPv2 configurations including client, switch & AAA server.

The course also covers the Cisco's Airespace® network management system, Cisco's Wireless Control System (WCS). Usage of this comprehensive tool is then reinforced with hands-on configuration labs covering such topics as configuration management, templates & heat maps.

The course finishes by covering the maintenance of a WLAN and the Cisco's Airespace® systems by utilizing the Cisco Airespace® solution from unique product features and standard maintenance procedures to detailed troubleshooting methodologies and debugging tools.

To participate in the hands-on labs, please bring a laptop computer with an available 32-bit Card-Bus slot and an Ethernet port. The laptop's operating systems must be MS Windows 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:

- Understand the component makeup and features of the Cisco Airespace solution
- Understand how to propose and size the Cisco Airespace solution
- Install the Cisco Airespace® solution
- Configure the Cisco Airespace® solution
- Manage the Wireless Network using the Cisco Airespace® network management system, Cisco's Wireless Control System (WCS)
- Perform maintenance of the Wireless Network and Cisco's Airespace® systems by utilizing the Cisco Airespace® solution from unique product features and standard maintenance procedures to detailed troubleshooting methodologies and debugging tools

### Who Would Benefit

This course is designed for Cisco Customers and Partners, interested in the Cisco Airespace® solution, that have a strong data networking background who will be responsible for the planning, implementing and/or supporting an enterprise WLAN.

## Cisco Airespace Installation, Administration and Maintenance v2.0 (continued)

### Prerequisite

To realize the full benefit from this course, the student should have a working knowledge of the following concepts and technologies:

- Microsoft Windows XP operating system
- Authentication, Authorization, & Accounting (AAA) Concepts
  - Remote Access Dial-up Service (RADIUS)
  - Lightweight Directory Access Protocol (LDAP)
- Data networking concepts
  - Open systems interconnection (OSI) model
  - Switching & routing
  - Virtual local area network (VLAN)
- Data networking protocols
  - Spanning tree protocol (STP)
  - Internet group management protocol (IGMP)
  - Transport Control Protocol/Internet protocol (TCP/IP)
  - 802.1Q protocol
- Wireless networking concepts

Cisco Aironet Wireless LAN Fundamentals & Site Survey (AWFSS v5.0) course is also recommended

### Follow-On Courses

- Cisco Aironet WLAN Security (CWLS)
- Cisco Aironet Wireless LAN Advanced Technologies (AWLAT)

### Course Content

#### Course & Class Introduction

Class administration  
Classware checklist  
Participant roles  
Participant introductions  
Course prerequisites  
Course syllabus  
Module format  
Course icons  
Class topology  
Module review

#### WLAN Introduction (reference only)

WLAN Growth  
WLAN and LAN comparison  
WLAN features & components  
WLAN basics  
WLAN infrastructure issues  
WLAN applications  
Radio frequency (RF) & antenna basics

#### WLAN Introduction (continued)

802.11 standards, frequency bands & data rates  
802.11 client authentication & association  
WLAN security basics & issues  
Module review

#### WLAN Installation (reference only)

Deployment Methodology  
Deployment Requirements

- Protocol Comparison

Enterprise WLAN  
Determining AP Count & Placement

- Wireless Valley
- Z factor design
- Site Survey

Network Verification  
Module Review

## Cisco Airespace Installation, Administration and Maintenance v2.0 (continued)

### Airespace Site Survey Tool (reference only)

Airespace Site Survey Tool (ASST)  
Overview  
System requirements  
- Supported adapters  
ASST installation  
ASST interface  
Project, map and survey setup  
Performing a site survey  
Interpreting ASST data  
Module Review

### Airespace Introduction

Enterprise WLAN issues  
Airespace WLAN solution  
Airespace product suite  
- Systems  
- Access points  
- Network Management Software  
Airespace benefits  
Module review

### Airespace Hardware Installation

Airespace Access Point (AP)  
AireWave Director Software  
Airespace Light Weight Access Point Protocol (LWAPP)  
3rd Party AP  
Airespace WLAN systems  
System initial setup options  
Setup Wizard configuration tools  
Command Line Interface (CLI)  
Switch Web Interface (SWI)  
System administrative options  
Module Review

### Lab Airespace System Setup

### Lab Airespace Switch Web Interface

### Airespace Administration

Network configurations  
Airespace roaming  
Security configurations  
Security policy configurations  
Module review

### Lab Open Authentication

### Lab WEP Authentication (reference only)

### Lab Layer 3 AP Configuration

### Lab WEB Authentication

### Lab 802.1x EAP-PEAP-MSCHAPv2

### Lab WPA EAP-PEAP-MSCHAPv2 (reference only)

### Lab IPSec Authentication (reference only)

### Lab IPSec over L2TP Authentication (reference only)

### WLAN Administration (reference only)

Windows XP client configurations  
Windows 2000 server configuration  
- Internet Authentication Service (IAS)  
- Certificate Authority Certificates  
- Dynamic Host Control Protocol (DHCP)

### Cisco's Airespace Wireless Control System

WCS overview  
Location tracking  
WCS installation  
Admin Tab  
Database population  
WLAN monitoring  
Configuration management  
WCS upgrade  
Module review

### Airespace Floor Plan Editor (reference only)

Airespace Floor Plan Editor overview  
Importing a floor plan  
Editing a floor plan  
Converting a floor plan  
Module review

### Lab Airespace Control System

### WLAN Maintenance

System troubleshooting  
Client troubleshooting  
Technical support  
Troubleshooting methodology

## **Cisco Airespace Installation, Administration and Maintenance v2.0 (continued)**

### **WLAN Maintenance (continued)**

- CLI troubleshooting
- Mirror mode
- Logging options
- Aggressive load balancing
- Wireless Protection Policies
- Client management
- Statistics
- Module review

### **Airespace Maintenance**

- System information
- AP information
- Code
- System download file
- Manual upgrade system code
- System upload file
- Clear configurations
- Module Review