

Managing Cisco Wireless LANs (WMNGI)

Course Summary

Description

The WMNGI course is designed to prepare students to use the Cisco Unified Wireless Network management products and applications to configure, administer, manage, troubleshoot, and optimize the network. This instructor-led course offers in-depth hands-on labs. This course provided hands-on labs which cover controller firmware release 7.5 MR1 as well as Cisco Prime Infrastructure software release 1.4.

This course begins with a high-level overview of the Cisco Prime Infrastructure (PI) product line, including product functions, components, capabilities, and features. Students will learn where to locate installation procedures for both the access point (AP) and their associated Wireless LAN Controllers (WLCs) and properly install the CUWN hardware appropriate to site and use requirements. Students will look at ways to administer CUWN, 802.11 security policies, and QoS appropriately to protect and optimize performance on the wireless network. Students will configure and implement key PI security features to mitigate WLAN security threats. Students will conclude training by learning how to utilize recommended troubleshooting methodology and the various tools available to gather and assess system data to isolate equipment failures and security threats.

Objectives

After taking this course, students will be able to:

- Explain how Cisco Unified Wireless Network management components help resolve today's network management challenges
- Describe how to configure the Cisco Prime Infrastructure (PI)
- Configure components through the Configure tab and templates
- Configure the guest access feature set
- Integrate the Cisco PI and the MSE to provide services and track mobile clients
- Configure the Connected Mobile Experiences solution
- Configure Bonjour Services and Application Visibility and Control (AVC) solutions for application and device support
- Utilize a recommended troubleshooting methodology and the various tools available to gather and assess system data to isolate various common PI failures
- Monitor wired devices, Cisco ISE, wireless controllers, APs, rogue APs, ad hoc events, and CleanAir heatmaps, charts, and reports

Topics

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| • Cisco Unified Wireless Network Management Solutions | • Mobility Services |
| • Network Management System Configuration | • Connected Mobile Experiences |
| • Component Configuration through Cisco PI | • Application and Device Support |
| • Guest Access | • NCS Maintenance and Troubleshooting Tasks |
| | • Network Monitoring and Troubleshooting |

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Course Summary (cont'd)

Audience

The primary audience is composed of individuals responsible for performing or overseeing network management tasks. The primary audience is as follows:

- Cisco Network Planners, Managers, Administrators
- Cisco TAC personnel
- Cisco Networking or Network Consulting Engineers
- Cisco and Channel Partner Advanced / Professional Services

The secondary audience is composed of individuals who need to know about Cisco's network management systems and their operations:

- Cisco Field Engineers
- Cisco Technical Marketing Engineers
- Cisco Optimization Engineers

The tertiary audience for this course is as follows:

- Cisco Project Managers
- Cisco Product Sales Specialists
- Cisco and Channel Partner Business Development Managers
- Cisco and Channel Partner Account Managers

Prerequisites

Completion of the CUWN course is a strongly recommended prior to attending WMNGI. It is also recommended that students have basic knowledge of the following:

- Basic networking principles
- Basic knowledge about RF
- General network management
- Cisco Lifecycle Services

Duration

Four days

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Course Outline

- I. Cisco Unified Wireless Network Management Solutions**
 - A. Introducing Lifecycle Management
 - B. Introducing Cisco Prime Infrastructure
 - C. Introducing Cisco Mobility Services Engine (MSE)
 - D. Introducing Cisco Identity Services Engine
- II. Network Management System Configuration**
 - A. Configuring High Availability and Firewall Rules for Cisco PI
 - B. Adding Users
 - C. Navigating Cisco PI
 - D. Using the Map Editor
 - E. Using the Planning Tool
- III. Component Configuration through Cisco PI**
 - A. Configuring Components through Cisco PI Configure Tab
 - B. Working with Controller and Switch Location Templates
 - C. Working with AP Configuration and Migration Templates
 - D. Setting up Auto-Provisioning and Scheduling Configuration Tasks
- IV. Guest Access**
 - A. Defining Guest Access Methods
 - B. Configuring Guest Access Features through Cisco PI
- V. Mobility Services**
 - A. Configuring and Integrating the MSE
 - B. Configuring and Tuning Location Services
 - C. Tracking Mobile Clients
 - D. Supporting Location Services
 - E. Troubleshooting Location Services
 - F. Configuring Adaptive Wireless IPS
- VI. Connected Mobile Experiences**
 - A. Overview of CMX
 - B. Implementing CMX
 - C. Configuring Mobility Services Advertisement Protocol
- VII. Application and Device Support**
 - A. Overview of Bonjour Services
 - B. Overview of Application Visibility and Control
- VIII. NCS Maintenance and Troubleshooting Tasks**
 - A. Performing Maintenance Operations
 - B. Troubleshooting NCS Operational Issues
- IX. Network Monitoring and Troubleshooting**
 - A. Monitoring and Troubleshooting the Network
 - B. Managing Network Performance