CWDP (CERTIFIED WIRELESS DESIGN PROFESSIONAL) 1

Objetivo

The CWDP Wireless LAN Design course objectives: â□¢ Understand the requirements analysis and documentation procedures; â□¢ Define the security requirements of the WLAN including security solutions; â□¢ Document the physical coverage requirements of the WLAN; â□¢ Determine requirements for bridge links; â□¢ Understand and implement the knowledge require to upgrade existing WLANs; â□¢ Describe the building factors impacting the WLAN design; â□¢ Explain and perform the different types of site surveys; â□¢ Understand and utilize site survey tools; â□¢ Describe proper site survey procedures; â□¢ Implement channel plans according to the design recommendations; â□¢ Understand the basic installation procedures used for different WLAN architectures; â□¢ Identify the purpose and methods of post-installation site surveys; â□¢ Understand and use the appropriate tools in the validation process; â□¢ Understand and implement methods for troubleshooting; â□¢ Define metrics and other information collected and reported during a site survey; â□¢ Understand the different methodologies used in site surveys; â□¢ Explain and perform procedures required for outdoor site surveys; â□¢ Plan for RF management including channel usage, MCA and SCA and RRM; â□¢ Design appropriate 802.11 channel plans; â□¢ Select access points (APs) and define configuration and installation parameters; â□¢ Describe the varied configuration processes for different AP deployment models; â□¢ Design branch and remote office WLAN deployments; â□¢ Design mesh networks including mesh access networks; â□¢ Design bridge links including determination of appropriate line of sight.

PÃºblico Alvo

Recommended training for professionals interested on Designing Wireless Networks, and who will take the CWDP certification exam.

PrÃ©-Requisitos

CWNA certificate professional or equivalent knowledge.

Carga HorÃ¡ria

40 horas (5 dias).

ConteÃºdo ProgramÃ¡tico

Course Introduction
Course Outline
Course Goals & Objectives

WLAN Design Overview
Importance of good design
Impact of bad design

Design process
Design skills
Design toolkit
Pre-planning
Customer interaction
Requirements gathering
Discovering existing systems
Documenting the environment
Defining constraints
Creating documentation
Client device types
Application types
Application-specific design
High density design issues
Standard corporate networks

Industry-specific designs
Government
Healthcare
Hospitality
Education
Retail
Public hotspots
Transportation
Mobile offices
Outdoor and mesh
Remote networks and branch offices
Last-mile/ISP and bridging

Defining vendor issues
Operational planes

Design models
Understanding architecture differences
RF spectrum
RF behaviors
Modulation and coding schemes
RF accessories
Throughput factors
Antennas
802.11n and antennas
Choosing APs
Powering APs

Site Survey
Site survey tools
Site survey preparation
Predictive site surveys

Manual site surveys
Site survey principles and processes

QoS
Quality of Service (QoS) overview
QoS application points
Roaming support

Security
Bad security
Authentication solutions
Encryption solutions
Security best practices
Intrusion prevention

Network health status
Troubleshooting and validation process
Troubleshooting and validation tools
Common problems

Requirements Analysis
Designing for Clients and Applications
Designing for Industry
Vendor Selection Processes
Radio Frequency Planning
WLAN Hardware Selection
Site Surveys
Designing for QoS
Designing for Security

Installation Testing, Validation and Troubleshooting
Design Troubleshooting

Case Studies
Case studies may be used in groups to explore concepts learned in the lecture materials.
Potential case studies include:
• Designing for future capacity
• Designing in a moderate interference environment
• Designing multiple SSID networks

Dynamic Hands-on Lab Exercises
Trainers may include hands-on lab time using any or all of the following tools:
• Spectrum analyzer
• Protocol analyzer
• Site survey software
• Diagramming software
• Various wireless adapters and antennas
• Various wireless APs