



Design & Deploy an Enterprise WiFi6 Network

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Code	Course
6100-3078	Design & Deploy an Enterprise WiFi6 Network

Course Outlines - 4 Days Training Event

What will you learn?

- Design & Implement WiFi 6 Networks for different types of buildings (hotels, office buildings, stadiums, retail stores, hospitals, shopping malls, airports, & schools) and...
- Different types of WiFi 6 Access Points and Antennas, and their signal coverage
- How to design a Redundant Wireless Network
- Deploying a multi-site Wireless Network
- Understand the business aspects of designing, installing, and maintaining a Wireless Network, and the costs associated with the network
- The different components of a Wireless Network (access points, repeaters, switches, routers, controllers, VoIP phones)
- Where to place Switches, Routers, and Access Points
- How to Design & Install outdoor Wireless Networks
- Deploying Voice Over Wireless LAN
- Applications that benefit from, or rely on, Wireless Networks (Guest WiFi, Voice Over WLAN, Premium WiFi, Location-Based Services, Inventory Management)





Pre-Requisites

- You should have a basic understanding of computer networks (routers, switches, IP addressing, WANs, VPNs).

Who should attend this course?

- IT Engineers who are deploying Enterprise WiFi Networks
- Wireless and Telecom Engineers
- IT Managers
- Anyone who wants to have a real-world understanding of WiFi

Course Outlines

- Introduction

WiFi 6 Fundamentals

- IEEE 802.11ax
- RF, Antenna, and Basic Connection Process
- Channel Access
- Frequencies
- WiFi 6 Frames
- Free Space Path Loss
- Ranging

Site Survey with Ekahau Tool

- Introduction to Ekahau Site Survey
- Predictive Site Survey
- Pre-Deployment Site Survey
- Post-Deployment Site Survey

Initial Planning

- Initial Planning of a WiFi 6 Network - New Construction
- Initial Planning of a WiFi 6 Network - Existing Construction
- Initial Planning of a WiFi 6 Network - Passive Surveys & SNR

Access Points & User Devices

- Access Points - Introduction
- Power Over Ethernet
- Wireless Mesh Access Points
- Access Point Antennas, Amplifiers, & Repeaters
- Access Point Placement
- Access Point Placement - Performing Active Surveys & Simulations



Controllers, Application Servers, & Switches

- Wireless Controllers
- Application Servers
- Switches
- MDFs & IDF
- Examples

Advanced Design Considerations

- User Quantity
- WANs
- Redundancy
- Roaming
- Multiple Floors, Frequency, Transmit Power, RRM

Security

- Guest WiFi
- Encryption & Authentication
- Rogue APs & Honeypots
- RF Shielding, Physical Security & DDos

WiFi 6 Penetration Testing

Applications

- Introduction
- Authentication

- Monitoring
- Location Awareness
- Inventory Management
- Voice over Wireless LAN

Installation

- New Construction
- Existing Construction
- Testing

Using Fluke AirMagnet

- Passive Surveys & Planning
- Active Surveys
- JPERF & GPS



Photos from our past training events

More details at www.wh-consult.com/training



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Tunis - Tunisia



Tunis - Tunisia



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