



MFE-IT

Reference: NM/EN/WI

Wi-Fi and Mobility Technologies Training Course

Deploy and Secure Your Professional Wireless Network

Duration: 2 Days | Hours: 14 h

Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice

DESCRIPTION

With the rapid evolution of mobile usage and remote working, Wi-Fi infrastructure has become strategic for enterprise connectivity. From open-plan offices to industrial sites, manufacturing floors and education campuses, professional Wi-Fi must combine performance, security, density handling and seamless roaming — challenges that go far beyond consumer Wi-Fi.

This training course will help you understand the fundamentals of wireless technology, identify best practices for deployment and security, and learn how to use network configuration and diagnostic tools. It covers the entire lifecycle of a Wi-Fi network — from planning to monitoring — with a focus on standards (Wi-Fi 6, 6E, 7), interference, controllers and security.

LEARNING OBJECTIVES

By the end of this training course, participants will be able to:

- Understand the physical and protocol principles of Wi-Fi (802.11)
- Identify standards, bands, channels, modulation and range
- Plan and deploy a reliable enterprise Wi-Fi infrastructure
- Secure a wireless network (WPA3, MAC filtering, captive portal, VLAN)
- Diagnose faults, collisions, signal loss or congestion
- Understand the constraints of mobility and roaming in extended infrastructures

PREREQUISITES

- Good knowledge of TCP/IP, routing and basic network concepts
- Experience in system or infrastructure administration desirable
- Basic knowledge of IT security

Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.

TARGET AUDIENCE

IT technicians, system administrators, network integrators and mobility technicians designing or operating professional Wi-Fi networks.

DETAILED PROGRAMME

The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

Module 1 – Fundamentals of Wireless Networks

- Wi-Fi standards: 802.11 a/b/g/n/ac/ax/be (Wi-Fi 6/6E/7)
- 2.4 GHz, 5 GHz and 6 GHz bands
- Modulation, channels and interference

Module 2 – Enterprise Wi-Fi Architecture

- Access points and controllers
- Centralised vs distributed topologies
- VLAN and SSID management

Module 3 – Wi-Fi Network Security

- Encryption and WPA2/WPA3 authentication
- RADIUS and 802.1X enterprise auth
- Captive portal and network segmentation

Module 4 – Mobility and Roaming Management

- Handoff and seamless roaming between APs
- Mobile IP and fast roaming protocols (802.11r/k/v)
- QoS in mobile environments

Module 5 – Deployment and Monitoring Tools

- Site survey tools (Ekahau, NetSpot, Hamina)
- Spectrum analysers and signal analysis
- SNMP and Wi-Fi monitoring with common diagnostics

TEACHING METHODS

Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: contact@mfe-it.com.

PRACTICAL INFORMATION

Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

Certification and Validation

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

Benefits for Participants

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

Benefits for the Organisation

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts