Wireless Fundamentals 2 (WFUN2)

ID WFUN2   **Prix** CHF 1 850,– (Hors Taxe)   **Durée** 2 jours

A qui s'adresse cette formation

- IT staff
- Networkers
- Technicians/Electrical Engineers
- Administrators

Pré-requis

- !Wireless Fundamentals 1 (WFUN1)
- Basic knowledge of network protocols and wireless LAN beneficial, but not required

Objectifs

In this seminar, we will provide you with the advanced fundamentals of radio engineering and wireless technologies.

In addition, topics such as antenna design, complex modulations, SNR, RSSI, DCA, TPC, 802.11ax, WPA3, MU-MIMO, OFDMA , wireless mesh, office extend, high density, enterprise design, branch office design, use of analysis tools, use of planning and illumination tools, use of Wireshark will be covered.

The theory is accompanied with extensive practical exercises and examples from real networks as well as live demos by our WiFi experts. The course offers a vendor-independent introduction to wireless and provides all the basic knowledge needed to prepare you to attend vendor-specific courses such as AMF and WLFNDU.

Contenu

RF Advanced Topics

- Electromagnetic Spectrum
- Evolution of Wi-Fi 6
- Understanding Guard Interval
- Inverse-Square Law
- Advanced Antenna Design
- Wi-Fi RF Improvements
- Maximal Ratio Combining
- Transmit Beamforming
- Spatial Multiplexing
- Advanced Wi-Fi Modulation
- Relationship Between Modulation and SNR
- Channel Bonding

Radio Resource Management

- RRM Algorithm
- Dynamic Channel Assignment
- Dynamic Bandwith Selection
- Dynamic Frequency Selection
- Transmit Power Control
- Coverage Hole Detection and Mitigation

802.11ax / WiFi 6 / WiFi 6e

- 802.11ax
- Understanding OFDMA
- Resource Units
- OFDMA and MU-MIMO
- BSS Coloring
- 6 GHz and more

Different Wireless Deployments

- Enterprise Deployment
- High Density Deployment
- Branch Office Deployment
- Central Breakout Considerations
- Local Breakout Considerations
- Wireless Mesh
- Office Extend and Teleworkers

Advanced Wireless Security

- Types of guest access
- Advanced Wireless Security
- WPA3 Security Enhancements
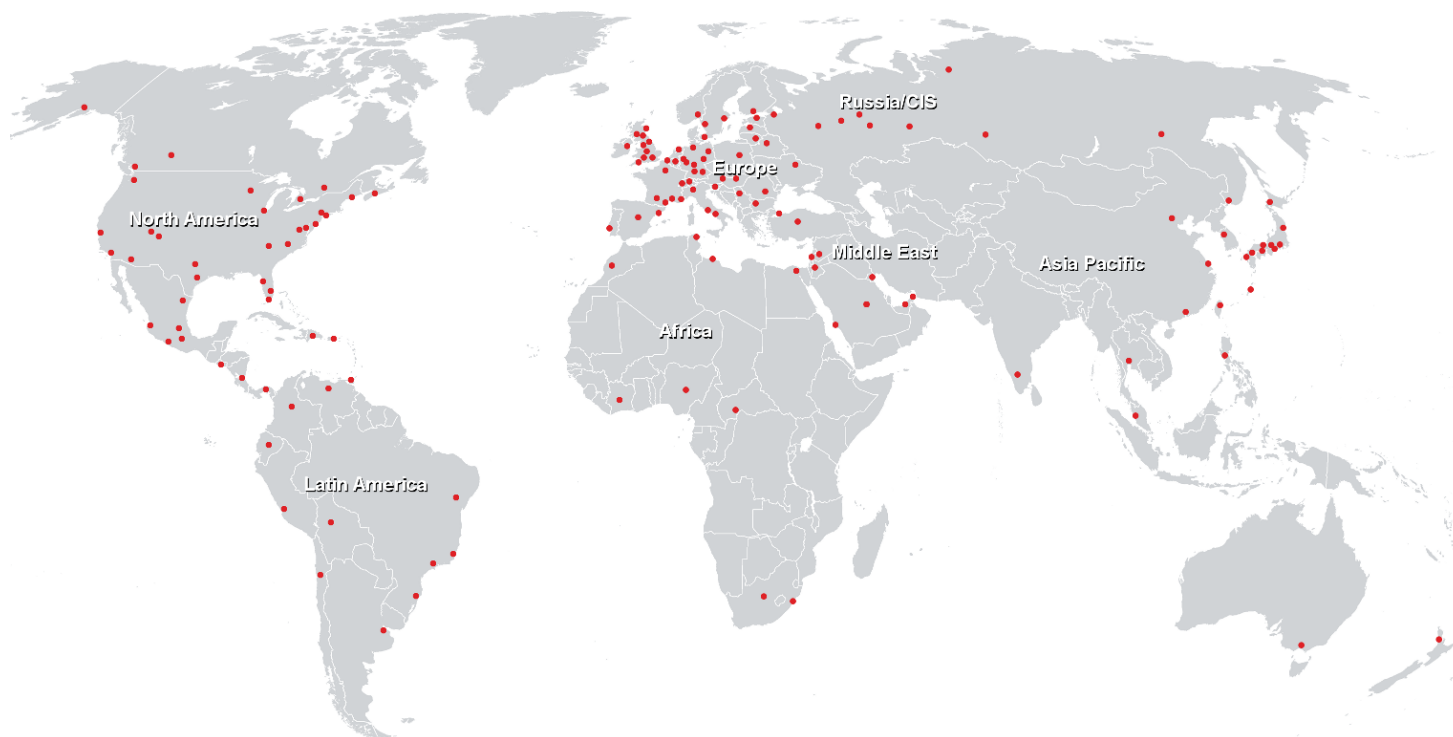- Identity PSK

High Availability

- WLC High Availability
- HA SSO
- N+1 HA
- N+N HA
- Failover Issues

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Wireless Deep Dive and Analysis

- WiFi Analysis
- Wi-Fi Useful Tools
- Application Testing
- Using Wireshark to Analyze a Packet Capture
- Wireshark Filters

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Centres de formation dans le monde entier

Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch