

## Wireless networks and their security (code: WiFi)

### Overview

Theory and practice of wireless networking (802.11 protocol family). Configuring WiFi on network devices and workstations. Security issues (authorization and encryption methods). As an exercise, participants learn how to eavesdrop on unsecured network traffic and break networks that use the vulnerable WEP protocol.

### Duration

1 day

### Agenda

1. Introduction to wireless communication
2. 802.11 standard and its variants. Medium characteristics, basic concepts: channel, power
3. Connection types, point-to-point, point-to-multipoint
4. Basic access point configuration
5. Basic workstation configuration (Windows, Linux)
6. Client roaming between multiple access points
7. Wireless bridge configuration using WDS mode
8. Basic security topics
  - SSID
  - MAC address filtering (and why it's no good)
9. Encryption mechanisms
  - WEP
  - WPA/WPA2, Enterprise and Personal (PSK)
  - RADIUS server for Enterprise WPA
10. Penetration testing tools, network scanners
11. Breaking WEP encryption

### Target audience and prerequisites

This course targets at least intermediate-level network administrators.

Participants must have good knowledge of general network configuration on any operating system (protocol stack, routing, firewalls).

### Certificates

Course participants receive completion certificates signed by ALX.

### Locations

- Warsaw (English) – Jasna 14/16A
- Online (English) – your home, office or wherever you want
- any other location (London, UK, EU) on request

### Price

490 EUR

The price includes:

### Ask for details

Phone +44 203 608 6289

info@alx.training

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.

**Ask for details**

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