



Wi-Fi troubleshooting

One day training explains principles of IEEE 802.11 (Wi-Fi) standard, network performance and security. Analysis and debug tools are introduced; real applications are discussed and tried out in a hands-on session that concludes the training.

Target audience:

- Ideal for IT and security engineers who want to extend their knowledge of 802.11
- Consulting engineers and technical audit personnel
- Anyone who wants to better understand and effectively debug 802.11 networks

Tools used:

- CACE Pilot
- AirPcap
- Wi-Spy
- Ekahau Site Survey

Prerequisites:

- Basic knowledge IP Networking
- User experience of 802.11 networks

Language

- English, Swedish

Training Agenda

AM - Theory

Item	Description/Keywords
802.11 Physical and MAC layer	Frequency, bandwidth, channels, 802.11 standards, radio link budget, antennas, interference, frame types, access method, lower layer's overhead
802.11 Configurations	Infrastructure vs. Ad-hoc (peer to peer), capacity vs. range
Security	Authentication vs. encryption, WEP and WPA principles and vulnerabilities, implementation guidelines

Lunch

PM – Practice

Item	Description/Keywords
Introduction	Tools presentation, understanding capture process
Getting most out of captured data	Understanding critical views, scatter diagrams, finding “best” channel, finding poor performers
Hands-on	Practical data capture and analysis in live environment
