

Wireless LAN – Hotspots & Security

WLAN takes over the leadership – especially in light of the decreasing 3G-euphoria quite a few parties are consumed by the charm of Wireless LAN and public hotspots.

This course begins with an introduction to the wireless LAN technology. The course discusses the various possibilities of the configuration as well as the physical functionality and different access methods on the transfer mode by air.

A focus of this course is on the subject of security. The participants obtain an overview of the security mechanism with WLAN and the current possibilities to protect themselves as operating companies as well as their customers against unauthorised attacks on private data.

At the end of the course we will discuss also the challenges of the billing process. Some billing solutions as well as the integrations into UMTS will be presented.

Target Group / Requirements

The course is addressed to network managers and those who are interested in obtaining a basic understanding of the WLAN technology and deal with the much discussed security aspects. Basic knowledge in the area of data networks is a prerequisite for this course.

Course Content

Introduction

- Basic terms
- Coverage, range, data rates
- Typical implementations
- WLAN standards and enhancements

WLAN architecture

- Basic configurations: BSS, IBSS, ESS
- Network Identifiers (SSID, BSSID)

Physical and MAC layer

- Physical transmission methods (IrDA, FHSS, DSSS, OFDM)
- MAC access (DCF, RTS/CTS, PCF)
- Management functionality (synchronisation, power management, roaming)

Basic security features

- Wired equivalent privacy (WEP)
- WEP: functionality and weaknesses
- SSID broadcast

Course Duration:

2 days

Course Number:

ND1353

Requirements:

Basic knowledge of data networks

Challenges and threats

- War driving
- Sniffing, spoofing
- Man-in-the-middle-attack, Denial of Service (DoS)

Security Strategies

- Basic security concepts (WEP, SSID, Access Control List)
- Enhanced security (IEEE 802.11i and WPA)
- Virtual Private Network (VPN) and Secure Socket Layer (SSL)

Practical exercises

- Sniffing
- Spoofing
- etc.

WLAN billing

- Problems with billing
- Different solutions

WLAN and the others

- Comparison with Bluetooth and 3G
- WIMAX (IEEE 802.16)

Certification

Certificates are given to all participants at the end of the course about the successful completion.

Course Registration:

Please contact us via

- phone: +49 89 1894354-0
- email: training@tfk.de or
- via our website www.tfk.de/training

You will receive a confirmation of your registration. We can also advise you concerning the best combination of course contents.

For clients with special requirements the optimal training concept can be customized. Modules from our training portfolio can be combined to meet your company-specific needs.