

TCP/IP Know how for TDM Experts

The telecommunications world and the world of data network technology are increasingly growing together. Meanwhile, traditional telephone services such as voice calls are carried partly or completely over data networks. The training of professionals from the telecommunications sector towards IT is necessary to be prepared for the upcoming developments in the telecommunications market.

This course provides an introduction to the network technology and is geared to the knowledge and understanding of people from the telecommunication area. Constant reference to telecom and practical content with specific exercises in our lab (Router, Switches, PCs) increase the efficiency of our training. The fundamentals are practiced by Wireshark trace of a training network by the participants themselves.

The trainer has many years of experience in both, telecommunications and network engineering. Course language and course materials are in English.

Target Group / Requirements

The course is designed for technical staffs of the telecommunications sector who want to familiarize themselves with the basics of networking.

Course Content

Introduction reference models

- Function of reference models (TK vs IT)
- OSI reference model and reference to network technology
- Functions of layers
- TCP/IP Protocol Suite

Local area networks

- Fundamental terms LAN
- Transmission bearer electrical/optical
- Ethernet technology in local area networks
- Network components (router, switch, host)
- Tracing of ethernet packages in our training lab

Protocols of the network layer

- Introduction in IP
- IP Addressing
- Address Resolution and IP-Routing
- Routing protocols (RIP, OSPF, BGP)
- Tracing of IP packages in our training lab

Transport layer

- TCP and UDP characteristics
- Functions of the transport layer (port, sequence, window)
- Functions of the User Datagram Protocol (UDP)

Course Duration:

3 days

Course Number:

ND1341

Requirements:

Basic knowledge of telecommunication

- Functions of the Transmission Control Protocol (TCP)
- Tracing of TCP and UDP packages in our training lab

Applications in IP

- Network applications (DHCP, DNS)
- Client-Server applikationen (http, smtp)
- Analysis of application traces in our training lab
- IP signalling (SIP, SDP)

New addressing concepts

- Network Address (Port) Translation (NA(P)T)
- IPv6

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 advice 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.