

SDH Fundamentals

By introducing synchronous digital Hierarchy (SDH) the network capacities in the world of data transfer have been dramatically increased. This digital technology is today the most widespread method for backbone networks and data lines with a high data emergence.

For network operators it is indispensable that their operators, planners and engineers understand the basic principles of SDH networks in order to apply this technology in an ideal way and to manage it effectively.

The aim of this course is to transfer a wide basic knowledge to anyone who works with SDH networks. The course participants will be able to understand, use and maintain SDH networks better.

Target Group / Requirements

Service technicians, NMC employees, planning and support engineers can take great advantage of this high-level training. Basic knowledge of transfer mode system is required in this course.

Course Content

Set-up of a telecommunication network

- General structure, hierarchies, interfaces
- Access technologies (radio and wired access, analog connection, ISDN, DSL)

Basics of transmission technology

- Basics of voice and data transmission

PDH

- PDH multiplexing and bit rates of PDH
- Data structure of PDH

SDH Basis

- SDH advantages
- STM-1 frame
- SDH data transmission
- NPDH and ATM mapping

Pointers and overheads

- Pointer functions
- AU₄-, TU₃-, TU₁₂-Pointer
- Overhead functions
- Section overhead (RS, MS)
- Path overhead (VC₄-, VC₃-, VC₁₂-POH)

Network elements and network topologies

- Different types of network elements (ADM, DXC, OLS)
- A practical view towards network topologies

Course Duration:

3 days

Course Number:

NF1160

Requirements:

Basic knowledge of transfer mode system

Maintenance in SDH

- Fault management
- Performance management
- Fault reporting

Data Communication Network

- Protocols
- Architecture

Synchronization

- Messages for synchronization
- Hierarchies

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 1894354-405
- 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.