ExperTeach NETWORKING

TCP/IP

Protocols, Addressing, Routing

The TCP/IP protocol family plays a dominant role in the IT world. Even applications such as telephony, which previously had nothing to do with IP, are now an integral part of TCP/IP. Knowledge of the associated protocols is an absolute must for every system or network administrator. The know-how imparted with many practical examples enables participants to play an active role in the planning, construction, operation and administration of IP-based networks. The focus of this course is on communication between clients and servers, the protocols and services required for this and the most common TCP/IP-based applications.

Course Contents

- Overview of the TCP/IP protocol family
- Uses and applications for TCP/IP
- End devices and switches - components in the TCP/IP network
- Addressing with IPv4 and IPv6
- Public and private IP addresses
- IP networks, subnet masks and default gateways
- Network and Port Address Translation (NAT and PAT)
- TCP/IP in local networks - cooperation with Ethernet and WLAN
- Address resolution (ARP)
- IP routing in companies and on the Internet, routing protocols
- The ICMP protocol for testing and troubleshooting
- Dynamic Host Configuration Protocol (DHCP)
- Name resolution via Domain Name Service (DNS)
- The TCP transport protocol - ports, flow control and retransmissions
- The transport protocol UDP and its special features
- Classic TCP/IP applications such as HTTP and FTP, Telnet, SSH and Voice over IP
- Threats and security in IP networks
- Exercises and demonstrations on the test network

E-Book The detailed digital documentation package, consisting of an e-book and PDF, is included in the price of the course.

Target Group

This course teaches the basics of networking for anyone involved in the planning, implementation and operation of client-server systems and networks. It is suitable for anyone who wants to get to grips with the world of TCP/IP from a technical perspective.

Prerequisites

Fundamental network knowledge, such as that imparted by attending the course Network technologies - Everything important at a glance!, is a prerequisite for successful course participation.

This Course in the Web

You can find the up-to-date information and options for ordering under the following link: www.experteach-training.com/go/**INIP**

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On our Website, you can reserve a course seat for 7 days free of charge and in an non-committal manner. This can also be done by phone under +49 6074/4868-0.

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