TCP/IP Advanced («TCA»)

This course deepens your existing basic knowledge of TCP/IP. Here you will not only learn to understand computer networks based on TCP/IP, but also to construct them yourself.

Duration: 2 days
Price: 1'500.–
Course documents: Digicomp course material

Content

TCP/IP has long been the de facto protocol standard for computer networks and the basis of the Internet. Sound knowledge of TCP/IP is a basic requirement in IT today.

This in-depth course builds on your basic knowledge and skills, in particular enabling you to plan and implement networks yourself. The focus of this very practical course consists of many exercises on how to build a network using modern devices, systems, methods and tools.

Topics include:

- Layer architecture of the TCP/IP stack
- Analysis of network traffic using graphical and command line tools.
- The lower layers: Ethernet, ARP, IP, DHCP, etc.
- TCP, UDP and other protocols in detail
- Network architectures and routing, static and with routing protocols
- The upper layers: Name resolution with DNS, protocols, applications
- Design and implementation of own networks
- For the numerous exercises, each participant has their own virtual training environment with several VMs in our data centre.
- Windows 10, Windows Server 2019, Wireshark for analysing network traffic and numerous other built-in tools and those available on the Internet are used.

The course is also ideal for preparing for certifications such as CompTIA+, CCNA, etc.

Key Learnings

- Understand the concepts and architecture of computer networks and the TCP/IP protocol family
- Know and understand how TCP/IP networks work in detail on all layers using real networks
- Apply professional tools to analyse and troubleshoot networks
- Design, implement and test your own networks

Methodology & didactics

The course is explicitly structured in a practice-oriented way. Concepts and theory are derived from practical exercises.

Target audience

This course is aimed at IT system administrators and IT support staff from all sectors.

Requirements

Basic knowledge and experience of computer networks with TCP/IP, such as taught in the course "TCP/IP Basis", as well as knowledge and practised handling of modern operating systems, especially Microsoft Windows.

- TCP/IP Basics («TCN»)

Further courses

- IPv6 Hands-on («IPH»)

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-it-provider/network-telecom/course-tcpip-advanced