TCP/IP Basics («TCN»)

In this course you will acquire today's important basic knowledge of computer networks and the TCP/IP protocol family. You will learn to understand the concepts, architecture and functionality of TCP/IP in detail and to carry out configurations yourself.

Duration: 1 day
Price: 700.–
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 basic course imparts sound basic knowledge of the concepts, architecture and functioning of computer networks with TCP/IP. The focus of this very practical course consists of many exercises to understand TCP/IP using modern devices, systems, methods and tools.

Topics include:

- Concepts and architecture of computer networks.
- Layer architecture of the TCP/IP stack.
- Analysing and understanding TCP/IP installations using graphical and command line tools.
- Ethernet and protocols: ARP, IP, DHCP
- TCP and UDP
- Routing
- Name resolution with DNS
- Configuring and troubleshooting TCP/IP 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.

Key Learnings

- Understand the concepts and architecture of computer networks and the TCP/IP protocol family
- Know and understand how TCP/IP networks work on the basis of real networks
- Independently configure and troubleshoot TCP/IP 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

Knowledge and practised handling of modern operating systems, in particular Microsoft Windows, are required.

- Basics of data communication («DAC»)

Further courses

- Network Architectures («NETZAR»)
- Security Architecture («SICHAR»)
- TCP/IP Advanced («TCA»)
- IPv6 Hands-on («IPH»)
- Cyber Security Tester – Hands-on Foundation («HAK»)

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-basics