Course : Computer networking for non-IT people

Practical course - 2d - 14h00 - Ref. REN
Price : 1700 CHF E.T.

★★★★½ 4,5 / 5

(BEST)

Practical details

Discussions, experience-sharing, demonstrations, tutorials, and real cases.

Teaching methods

Active learning suitable for non-IT-experts, based on examples, demonstrations, experience-sharing, real cases, and an evaluation of what was learned from the training.

Course schedule

1 Introduction

- The backbone network and bricks of the IS.
- Different components and their roles.
- Users and their needs.

2 Types of networks

- LAN, MAN, and WAN.
- The client/server model.

3 Connectivity options.

- Twisted pair cables.
- Optical fiber.
- Wireless technology.

4 Local area networks (LAN)

- The network card. MAC addressing.
- How Ethernet works, CSMA/CD.
- Possible speeds.
- Wireless local area networks (802.11x).

Hands-on work

Setting up a local area network with switches and workstations.

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5 The TCP/IP protocol

- The notion of a protocol. Principles of TCP/IP.
- Architecture and standardization. Communication.
- IP addressing. Broadcasting and multicasting.
- Overview of TCP and UDP. Concept of port numbers.

Hands-on work
Configuring the IP address and subnet mask on a workstation. Sharing data.

6 WAN networks

- Why and when to use a WAN.
- The new Ethernet MAN infrastructure.
- Overview of xDSL technology (ADSL/SDSL).

7 Routers

- Why and when to use a router.
- Overview of routing mechanisms.
- Concept of the routing protocols RIP and OSPF.
- port and network address translation (NAT/PAT).

Hands-on work
Simulating a WAN network. Configuring the default gateway for a workstation.

8 Application services

- DNS: Role and benefits. Notion of a domain.
- Overview of DHCP. Example usage.
- Internet, HTTP, and FTP messaging. VoIP.
- From voice to telephony.

Hands-on work
Configuring workstations in DHCP. Transferring a file with FTP. Configuring a DNS server.

Dates and locations

REMOTE CLASS
2026 : 2 Mar., 4 May, 4 May, 29 June, 29 June,
10 Sep., 19 Nov., 19 Nov., 17 Dec.