VPNs in theory and practice (code: VPN)

Overview

Participants learn the principles of virtual private networks and configuration details of most common VPN solutions on Linux.

Duration

1 day

Agenda

1. Overview of related concepts: network protocol stack, ISO/OSI model
   — frame structure at each layer
   — IP, ICMP, UDP and TCP protocols, reliable connections, retransmissions
2. Encryption, symmetric and public-key, RSA
3. Security, man-in-the-middle attacks
4. VPNs
   — common uses, operation principles
   — examples
   — when not to use
5. IPsec, IPsec on Linux
6. StrongSWAN, OpenSWAN
7. Eavesdropping
8. PPTP (Point-to-Point Tunelling Protocol)
   — when to use
   — PPTP/MPPE architecture, Linux as a PPTP server with Windows as a client
   — Linux as a PPTP client
9. OpenVPN

Target audience and prerequisites

The course targets at least intermediate-level Linux system/network administrators.

Participants must have good knowledge of general Linux administration and network configuration.

Certificates

Course participants receive completion certificates signed by ALX.

Locations

— Warsaw (English) – Jasna 14/16A
— Online (English) – your home, office or wherever you want
— any other location (London, UK, EU) on request

Price

490 EUR

The price includes:

— course materials,
— snacks, coffee, tea and soft drinks,
— course completion certificate,

— one-time consultation with the instructor after course completion.