

## LPI 201. Linux architecture and low-level configuration (code: LPI-201)

### Overview

The fundamental topics in system architecture and low-level Linux configuration. This training is designed for administrators and users who want to broaden their knowledge and familiarity with Linux. Through practical exercises, we teach topics such as kernel compilation, system boot procedure, management of devices, filesystems and disks, network configuration (including DNS servers) and backups. This is a preparatory training for the LPI 201 exam, which is organized by *Linux Professional Institute*. Passing this exam and the LPI 202 exam allows one to acquire the LPIC-2 certificate - *Advanced Level Linux Certification*.

We offer this training, combined with the LPI 202 training, as an alternate path for our classical LPIC-2 training path (the Linux Administrator course and a supplementary course), for persons interested only in the LPIC-2 certification who already have some familiarity with Linux administration.

For persons interested in a more in-depth look at the topics covered during this training, we recommend the Advanced Linux Administrator course, which provides a thorough coverage of several advanced technologies.

### Ask for details

Phone +44 203 608 6289

info@alx.training

### Duration

4 days

### Agenda

1. System architecture: Linux kernel
  - kernel and modules
  - compilation - when and how to compile the kernel
  - Patches: applying and removing
  - Kernel module management
2. The boot process
  - differences between the distributions
  - GRUB
  - kernel parameters
  - init and inittab, upstart
  - startup scripts
  - launching services
  - boot process
3. Filesystems and devices
  - filesystems and their tools: ext2, ext3, reiserfs, xfs, sawp
  - creating a file system (mkfs. \*, mkisofs, mkswap)
  - filesystem debugging
  - mount - practical aspects: fat and other file systems, -o loop, choosing a file system
  - /etc/fstab, /etc/mtab and related topics;
  - automount and AutoFS;
  - device files, udev.
4. Disk management
  - Configuring and using RAID 0, RAID 1 and RAID 5
  - Configuring and using LVM logical volumes
  - Hard disk settings: hdparm, sdparm
5. Networks

- Network interface configuration
  - Wireless network configuration
  - Routing tables
  - Monitoring devices and traffic
  - OpenVPN client configuration
  - Solving the common network problems
  - Communicating with remote users
6. Compiling and installing programs: configure, make
  7. Backups
    - Backup strategies
    - An overview of available solutions
  8. DNS server
    - Server configuration
    - DNS zones and their transfers
    - DNSSEC

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## Target audience and prerequisites

This training is designed for persons interested in taking the LPI 201 exam, and who have mastered the topics covered by the LPIC-1 certificate - that is, the basics of working in Linux, the command line and system configuration.

## Certificates

Course participants receive completion certificates signed by ALX.

## Locations

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

## Price

1140 EUR

The price includes:

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.