



Future Cert



Linux Essentials

Linux Essentials Professional Development Certificate (PDC)

Linux adoption continues to rise world-wide as individual users, government entities and industries ranging from automotive to space exploration embrace open source technologies.

This expansion of open source in enterprise is redefining traditional Information and Communication Technology (ICT) job roles to require more Linux skills. Whether you're starting your career in Open Source, or looking for advancement, independently verifying your skill set can help you stand out to hiring managers or your management team.

The **Linux Essentials Professional Development Certificate (PDC)** is a great way to show employers that you have the foundational skills required for your next job or promotion. It also serves as an ideal stepping-stone to the more advanced LPIC Professional Certification track for Linux Systems Administrators.

The Linux Essentials Professional Development Certificate validates a demonstrated understanding of:

- FOSS, the various communities, and licenses
- Knowledge of open source applications in the workplace as they relate to closed source equivalents
- Basic concepts of hardware, processes, programs and the components of the Linux Operating System
- How to work on the command line and with files
- How to create and restore compressed backups and archives
- System security, users/groups and file permissions for public and private directories
- How to create and run simple scripts

The Linux Essentials is a great foundation level certification to gain the basic understanding of Linux and computer systems. The perfect cert to get young people into Linux!

The LPIC Certification has helped UKFast to enhance the methods our engineers use to perform their jobs, and in turn has improved the speed of their development, productivity and the quality of support they are providing to our customers.

Aaron Saxton, The Director of Training and Education, UKFast

Exam objectives Version: Version 1.5 (last updated: May 2015)

Exam covered: Linux Essentials (LPI-010); Exam 1 of 1 to obtain Linux Essentials Professional Development Certificate

Objectives reflected in published exam: May 2015

Required prerequisite: None

About Objective Weights: Each objective is assigned a weighting value (x). The weights range roughly from 1 to 10 and indicate the relative importance of each objective. Objectives with higher weights will be covered in the exam with more questions.

TOPIC 1: THE LINUX COMMUNITY AND A CAREER IN OPEN SOURCE (7)

1.1 Linux Evolution and popular operating systems (2)

Knowledge of Linux development and major distributions.

Key knowledge areas:

- Open Source Philosophy
- Distributions
- Embedded Systems

1.2 Major Open Source applications (2)

Awareness of major applications as well as their uses and development.

Key knowledge areas:

- Desktop Applications
- Server Applications
- Development Languages
- Package Management Tools and repositories

1.3 Understanding Open Source software and licensing (1)

Open communities and licensing Open Source Software for business.

Key knowledge areas:

- Licensing
- Free Software Foundation (FSF), Open Source Initiative (OSI)

1.4 ICT skills and working in Linux (2)

Basic Information and Communication Technology (ICT) skills and working in Linux.

Key knowledge areas:

- Desktop Skills
- Getting to the Command Line
- Industry uses of Linux, Cloud Computing and Virtualization

TOPIC 2: FINDING YOUR WAY ON A LINUX SYSTEM (9)

2.1 Command Line basics (3)

Basics of using the Linux command line.

Key knowledge areas:

- Basic shell
- Command line syntax
- Variables
- Globbing
- Quoting

2.2 Using the Command Line to get help (2)

Running help commands and navigation of the various help systems.

Key knowledge areas:

- Man
- Info

2.3 Using directories and listing files (2)

Navigation of home and system directories and listing files in various locations.

Key knowledge areas:

- Files, directories
- Hidden files and directories
- Home
- Absolute and relative paths

2.4 Creating, moving and deleting files (2)

Create, move and delete files and directories under the home directory.

Key knowledge areas:

- Files and directories
- Case sensitivity
- Simple globbing and quoting

TOPIC 3: THE POWER OF THE COMMAND LINE (9)

3.1 Archiving files on the Command Line (2)

Archiving files in the user home directory.

Key knowledge areas:

- Files, directories
- Archives, compression

3.2 Searching and extracting data from files (3)

Search and extract data from files in the home directory.

Key knowledge areas:

- Command line pipes
- I/O re-direction
- Basic Regular Expressions ., [], *, ?

3.3 Turning commands into a script (4)

Turning repetitive commands into simple scripts.

Key knowledge areas:

- Basic shell scripting
- Awareness of common text editors

TOPIC 4: THE LINUX OPERATING SYSTEM (8)

4.1 Choosing an operating system (1)

Knowledge of major operating systems and Linux distributions.

Key knowledge areas:

- Windows, Mac, Linux differences
- Distribution life cycle management

4.2 Understanding computer hardware (2)

Familiarity with the components that go into building desktop and server computers.

Key knowledge areas:

- Hardware

4.3 Where Data is Stored (3)

Where various types of information are stored on a Linux system.

Key knowledge areas:

- Programs and configuration, packages and package databases
- Processes, memory addresses, system messaging and logging

4.4 Your computer on the network (2)

Querying vital networking configuration and determining the basic requirements for a computer on a Local Area Network (LAN).

Key knowledge areas:

- Internet, network, routers
- Querying DNS client configuration
- Querying Network configuration

TOPIC 5: SECURITY AND FILE PERMISSIONS (7)

5.1 Basic security and identifying user types (2)

Various types of users on a Linux system.

Key knowledge areas:

- Root and Standard Users
- System users

5.2 Creating Users and Groups (2)

Creating users and groups on a Linux system.

Key knowledge areas:

- User and group commands
- User IDs

5.3 Managing file permissions and ownership (2)

Understanding and manipulating file permissions and ownership settings.

Key knowledge areas:

- File/directory permissions and owners

5.4 Special Directories and Files (1)

Special directories and files on a Linux system including special permissions.

Key knowledge areas:

- Using temporary files and directories
- Symbolic links