

The Linux Career Path

Linux jobs are hot right now!

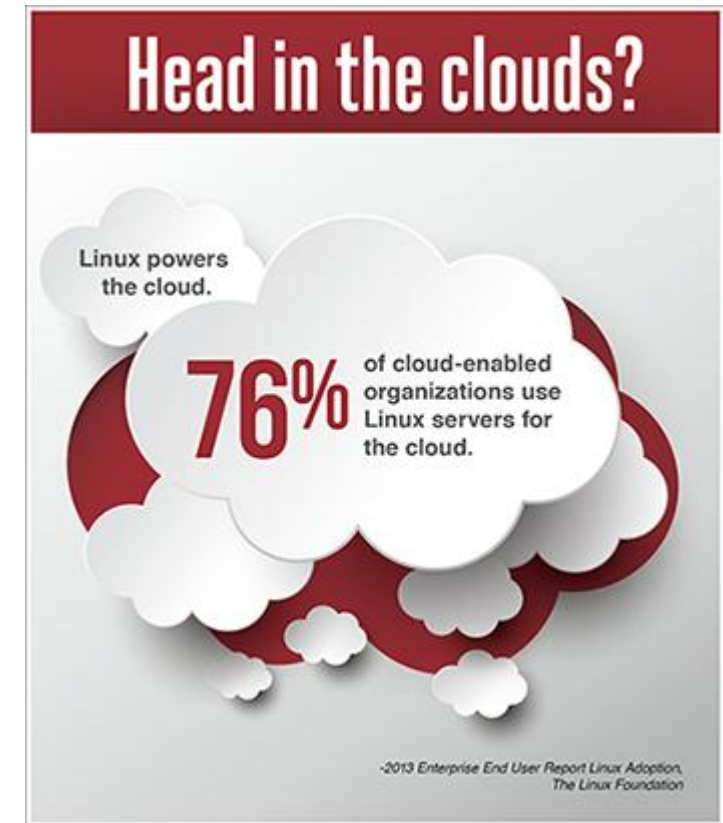
[Find out how to get started](#)

Why is Linux in such demand?

Linux adoption continues to rise because:

- Free and Open Source software liberates organizations from expensive and restrictive proprietary software licensing.
- Linux powers more than just servers these days. Smartphones, super computers, cloud technology, and NASA's Mars rover to name a few.
- Linux is supported by a huge Open Source development community that spans continents and companies. The code base evolves quickly providing resulting in creative and exciting new feature sets.

[Find out how to get started](#)



It's good to be wanted.



- 2014 Linux Job Report,
Linux Foundation & Dice

Top Reasons to Consider a Linux Career

- *Endless Job Possibilities*
 - with so many companies relying on Linux, there's open positions in many different fields
- *Above average pay, bonuses, and perks*
 - enjoy the flexibility of financial security
- *Challenging*
 - Linux is constantly evolving, there's always something new to learn

[Find out how to get started](#)

Power of IT Certification

Discover the Power of IT Certification

Certification can help you:

- Stay motivated to learn new skills
- Prove you have top job skills
- Stand out during the hiring process
- Earn promotions and raises

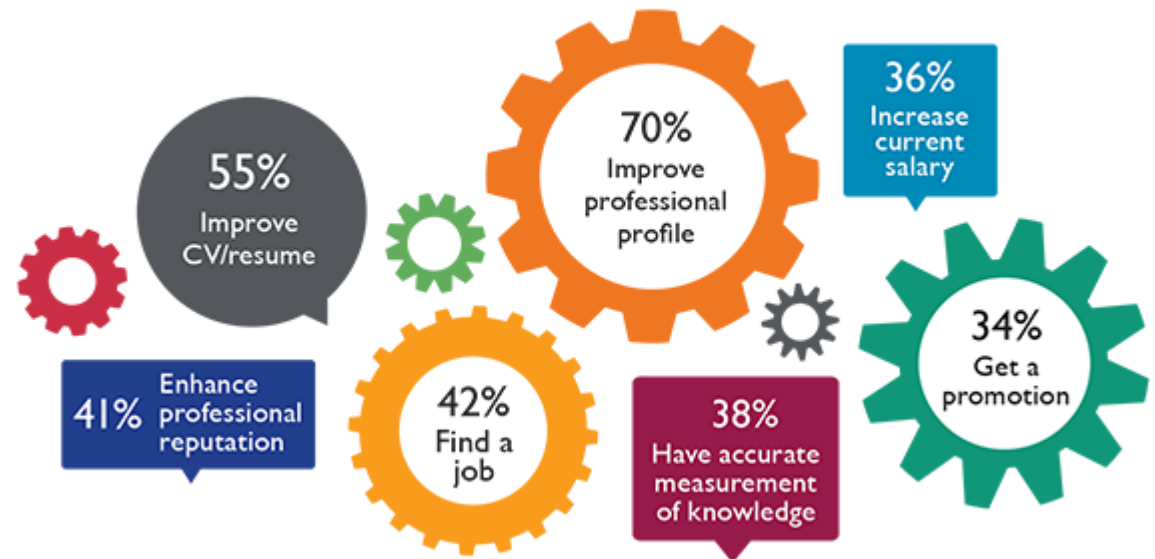
Certification can help you achieve your IT goals, no matter what they might be.

Helping you:

- Show you are up to date on the latest changes in your industry
- Feel confident to troubleshoot problems without outside help
- Quantify your IT and Linux knowledge
- Get a job that offers great pay and better perks

[Get Started with LPI Certification](#)

Why pursue IT certification?



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IT certification is an investment in your future.



Get a return on that investment

The Foote Partners report [IT Skills and Certification Index](#) shows double-digit growth in bonuses paid to LPIC-certified candidates:

- 20% increase in bonus pay for LPIC-1/CompTIA Linux+
- 33% increase in bonus pay for LPIC-2 certified professional in only 3-months!
- 25% growth in bonus pay LPIC-3 over the last year

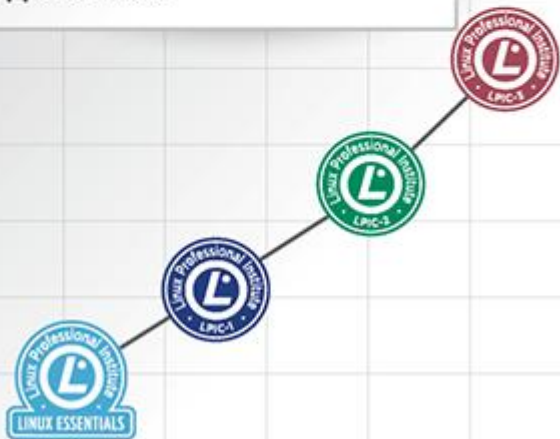
Break Through the HR Firewall

Certification can help you:

- Get to the top of the resume stack
- Prove to employers or clients you have the skills to do the job
- Stand out from other job candidates and gain the opportunity to interview
- Land new work opportunities while still building your Linux work experience

Why get LPI certified?

LPI offers professional certifications and credentials that are recognized industry-wide as a great way to validate skills across all Linux distributions; to give you core knowledge and the widest range of job opportunities.



[Get Started with LPI Certification](#)

Linux Certification with LPI

Our professional certifications are:

While no certification can guarantee that you'll be hired for a certain job, LPI certifications have proven value. In our 15 years we've delivered almost half a million exams and our certifications have become recognized around the world. Those holding LPI certifications have been shown to make more money and often receive larger bonuses than their non-certified peers.

Distribution and Vendor Neutral

Your next dream company may be running a different Linux distribution (or several)! By proving your skills at the core using the command line you can show you've got the skills and flexibility for that next job. No need to pick just one distribution to certify on.

By the community, for the community

We develop exams with the help of experts from the Linux community. These experts help us make sure our exams test you on the skills that are required in today's workplace.

Industry Standard

In 2010, the CompTIA Linux+ certification became powered by LPI. This means the Linux+ certification was re-launched using the LPI LPIC-1 exams. Even SUSE recognizes completing the LPI LPIC-1 level certification as meeting the requirements to achieve their SUSE Certified Linux Administrator (CLA) certification. Find out how these partnerships can help you get multiple industry-recognized certifications for the cost and effort of one.

At LPI it's important to us to deliver certification results you can depend on, whether you're a testing candidate or an IT recruiter. We've partnered with [Pearson VUE](#) to securely deliver our exams worldwide.

Cost Effective

Not everyone has the corporate support to cover the costs of professional development training and certification. With this in mind, we have done our best to make our certifications as affordable as possible. Our certifications are valid for five years, so you get the most out of your investment.

[Get Started with LPI Certification](#)

Linux Essentials

Linux Essentials is a professional development certificate program that covers basic knowledge for those working and studying Open Source and various distributions of Linux.

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. 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.



Special Note! To accommodate candidates that have studied from the previous version of the objectives (version 1.0), candidates may elect to take [version 1.0](#) of the Linux Essentials exam through November 2015 just make sure to select 010-100 for the old version of the exam. [More details...](#)

Linux Essentials Exam Objectives Topics:

- [1 – The Linux community and a career in open source](#)
- [2 – Finding your way on a Linux system](#)
- [3 – The power of the command line](#)
- [4 – The Linux operating system](#)
- [5 – Security and file permissions](#)

Topic 1: The Linux Community and a Career in Open Source (weight: 7)

1.1 Linux Evolution and Popular Operating Systems

Weight: 2

Description: Knowledge of Linux development and major distributions.

Key Knowledge Areas:

- Open Source Philosophy
- Distributions
- Embedded Systems

The following is a partial list of the used files, terms and utilities:

- Android
- Debian, Ubuntu (LTS)
- CentOS, openSUSE, Red Hat

- Linux Mint, Scientific Linux

1.2 Major Open Source Applications

Weight: 2

Description: 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

Terms and Utilities:

- OpenOffice.org, LibreOffice, Thunderbird, Firefox, GIMP
- Apache HTTPD, NGINX, MySQL, NFS, Samba
- C, Java, Perl, shell, Python, Samba
- dpkg, apt-get, rpm, yum

1.3 Understanding Open Source Software and Licensing

Weight: 1

Description: Open communities and licensing Open Source Software for business.

Key Knowledge Areas:

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

Terms and Utilities:

- GPL, BSD, Creative Commons
- Free Software, Open Source Software, FOSS, FLOSS
- Open Source business models

1.4 ICT Skills and Working in Linux

Weight: 2

Description: 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

Terms and Utilities:

- Using a browser, privacy concerns, configuration options, searching the web and saving content

- Terminal and Console
- Password issues
- Privacy issues and tools
- Use of common open source applications in presentations and projects

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Topic 2: Finding Your Way on a Linux System (weight: 9)

2.1 Command Line Basics

Weight: 3

Description: Basics of using the Linux command line.

Key Knowledge Areas:

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

Terms and Utilities:

- Bash
- echo
- history

- PATH env variable
- export
- type

2.2 Using the Command Line to Get Help

Weight: 2

Description: Running help commands and navigation of the various help systems.

Key Knowledge Areas:

- Man
- Info

Terms and Utilities:

- man
- info
- Man pages
- /usr/share/doc/
- locate

2.3 Using Directories and Listing Files

Weight: 2

Description: 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

Terms and Utilities:

- Common options for ls
- Recursive listings
- cd
- . and ..
- home and ~

2.4 Creating, Moving and Deleting Files

Weight: 2

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

Key Knowledge Areas:

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

Terms and Utilities:

- mv, cp, rm, touch
- mkdir, rmdir

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Topic 3: The Power of the Command Line (weight: 9)

3.1 Archiving Files on the Command Line

Weight: 2

Description: Archiving files in the user home directory.

Key Knowledge Areas:

- Files, directories
- Archives, compression

Terms and Utilities:

- tar
- Common tar options
- gzip, bzip2
- zip, unzip

3.2 Searching and Extracting Data from Files

Weight: 3

Description: Search and extract data from files in the home directory.

Key Knowledge Areas:

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

Terms and Utilities:

- grep
- less
- cat, head, tail
- sort
- cut
- wc

3.3 Turning Commands into a Script

Weight: 4

Description: Turning repetitive commands into simple scripts.

Key Knowledge Areas:

- Basic shell scripting
- Awareness of common text editors

Terms and Utilities:

- #! (shebang)
- /bin/bash
- Variables
- Arguments
- for loops
- echo
- Exit status

Nice to Know:

- pico, nano, vi (only basics for creating scripts)
- Bash
- if, while, case statements
- read and test, and [commands

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Topic 4: The Linux Operating System (weight: 8)

4.1 Choosing an Operating System

Weight: 1

Description: Knowledge of major operating systems and Linux distributions.

Key Knowledge Areas:

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

Terms and Utilities:

- GUI versus command line, desktop configuration
- Maintenance cycles, Beta and Stable

4.2 Understanding Computer Hardware

Weight: 2

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

Key Knowledge Areas:

- Hardware

Terms and Utilities:

- Motherboards, processors, power supplies, optical drives, peripherals
- Hard drives and partitions, /dev/sd*
- Drivers

4.3 Where Data is Stored

Weight: 3

Description: 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

Terms and Utilities:

- ps, top, free
- syslog, dmesg
- /etc/, /var/log/
- /boot/, /proc/, /dev/, /sys/

4.4 Your Computer on the Network

Weight: 2

Description: 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

Terms and Utilities:

- route, ip route show
- ifconfig, ip addr show
- netstat, ip route show
- /etc/resolv.conf, /etc/hosts
- IPv4, IPv6
- ping
- host

Topic 5: Security and File Permissions (weight: 7)

5.1 Basic Security and Identifying User Types

Weight: 2

Description: Various types of users on a Linux system.

Key Knowledge Areas:

- Root and Standard Users
- System users

Terms and Utilities:

- /etc/passwd, /etc/group
- id, who, w
- sudo, su

5.2 Creating Users and Groups

Weight: 2

Description: Creating users and groups on a Linux system.

Key Knowledge Areas:

- User and group commands
- User IDs

Terms and Utilities:

- /etc/passwd, /etc/shadow, /etc/group, /etc/skel/
- id, last

- useradd, groupadd
- passwd

5.3 Managing File Permissions and Ownership

Weight: 2

Description: Understanding and manipulating file permissions and ownership settings.

Key Knowledge Areas:

- File/directory permissions and owners

Terms and Utilities:

- ls -l, ls -a
- chmod, chown

5.4 Special Directories and Files

Weight: 1

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

Key Knowledge Areas:

- Using temporary files and directories
- Symbolic links

Terms and Utilities:

- /tmp/, /var/tmp/ and Sticky Bit
- ls -d
- ln -s