

Ubuntu Linux Fundamentals

What Is Linux?

Linux is an operating system.

In that sense, it's not unlike Microsoft Windows, or MAC OS X.

Linux, however, is open source. Open source does not always mean it's free from paid licensing. If you want to use RedHat Enterprise Linux or SUSE Linux Enterprise Server, for example, you'll have to pay. Ubuntu, however, is totally free.

An operating system is simply a platform upon which you may do your work, or upon which your server may do its work.

Users interact with applications. Applications interact with operating systems, and operating systems let them both interact with hardware.

The operating system itself lets you and your applications effectively use your hardware to do what you want done.

If designed well, an operating system hides many of the complexities of dealing with hardware, presenting a clean, intuitive interface for your use.

Ubuntu is a well designed operating system. It is intuitive, complete, and easy to use and learn.

Linux is actually a suite of programs, fundamentally built on GNU/Linux.

The operating system we now commonly refer to as Linux is actually the GNU operating system running on the Linux kernel, or GNU/Linux.

GNU is the operating system, with Linux as its kernel (the core or "engine" of the operating system).

Both are designed to emulate the proprietary UNIX operating system designed by AT&T Bell Labs in the 1970's.

Richard Stallman started the GNU project in 1983. The project had a kernel called GNU Hurd, but it never gained enough popularity to become fully developed.

Part of the project, however, was also an open source license, called the GNU General Public License or GPL. This is an important development for Linux as it paved the way for the pioneers who made operating systems that are open to all of us.

Linux Torvalds released an open source kernel under the GPL, which is now known as the Linux kernel.

We'll talk more in a later lesson about the Ubuntu distribution.

Graphics:

File:Operating system placement.svg

https://en.wikipedia.org/wiki/File:Operating_system_placement.svg

By Peter Hamer - Ken Thompson (sitting) and Dennis Ritchie at PDP-11Uploaded by Magnus Manske, CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=24512134>

Linus Torvalds in Fighter Jet - <http://i1-news.softpedia-static.com/images/news2/watch-linus-torvalds-has-his-name-written-on-a-t-33-fighter-jet-aircraft-487295-3.jpg>

Linus Thumbs Up - http://linux.softpedia.com/blog/watch-linus-torvalds-has-his-name-written-on-a-t-33-fighter-jet-aircraft-487295.shtml#sgal_0

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