

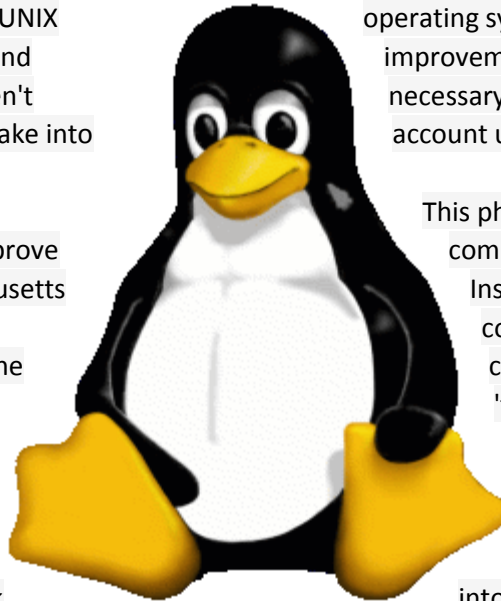
What is Linux??

Linux is an operating system that evolved from a kernel created by Linus Torvalds when he was a student at the University of Helsinki. Generally, it is obvious to most people what Linux is. However, both for political and practical reasons, it needs to be explained further. To say that Linux is an operating system means that it's meant to be used as an alternative to other operating systems, Windows, Mac OS, MS-DOS, Solaris and others. Linux is not a program like a word processor and is not a set of programs like an office suite. Linux is an interface between computer/server hardware, and the programs which run on it.

A brief history of Linux

Helsinki, he was using a version of the UNIX users sent requests for modifications and Tanenbaum, but he felt that they weren't his own operating system that would take into improvements.

Free Software pre-Linux and suggestions and using them to improve Stallman, who worked at the Massachusetts advocating just such an approach to the early 1970's. He was a pioneer in the pointing out that 'free' means difficult to continue working under concept of 'free software' he left MIT of GNU was to produce software modify. Linus Torvalds' goal 6 years produce an operating system that took



When Linus Torvalds was studying at the University of operating system called 'Minix'. Linus and other improvements to Minix's creator, Andrew necessary. That's when Linus decided to create account users' comments and suggestions for

This philosophy of asking for users' comments computer programs was not new. Richard Institute of Technology, had been computer programming and use since concept of 'free software', always 'freedom', not zero cost. Finding it conditions that he felt went against his in 1984 and founded GNU. The goal that was free to use, distribute and later was basically the same: to into account user feedback.

The kernel

We should point out here that the focal point of any operating system is its 'kernel'. Without going into great detail, the kernel is what tells the big chip that controls your computer to do what you want the program that you're using to do. To use a metaphor, if you go to your favorite Italian restaurant and order 'Spaghetti alla Bolognese', this dish is like your operating system. There are a lot of things that go into making that dish like pasta, tomato sauce, meatballs and cheese. Well, the kernel is like the pasta. Without pasta, that dish doesn't exist. You might as well find some bread and make a sandwich. A plate of just pasta is fairly unappetizing.

Without a kernel, an operating system doesn't exist. Without programs, a kernel is useless.

1991, a fateful year

In 1991, ideal conditions existed that would create Linux. In essence, Linus Torvalds had a kernel but no programs of his own, Richard Stallman and GNU had programs but no working kernel. Read the two men's own words about this:

Linus: said:

Sadly, a kernel by itself gets you nowhere. To get a working system you need a shell, compilers, a library etc.

RMS: said:

The GNU Hurd is not ready for production use. Fortunately, another kernel is available. [It is called] Linux. So combining the necessary programs provided by GNU in Cambridge, Massachusetts and a kernel, developed by Linus Torvalds in Helsinki, Finland, Linux was born. Due to the physical distances involved, the means used to get Linus' kernel together with the GNU programs was the Internet, then in its infancy. We can say then that

Linux is an operating system that came to life on the Internet. The Internet would also be crucial in Linux's subsequent development as the means of coordinating the work of all the developers that have made Linux into what it is today.

Linux is introduced

Late in 1991, Linus Torvalds had his kernel and a few GNU programs wrapped around it so it would work well enough to show other people what he had done. And that's what he did. The first people to see Linux knew that Linus was on to something. At this point, though, he needed more people to help him. Here's what Linus had to say back in 1991.

Linus: said:

Are you without a nice project and dying to cut your teeth on an OS you can try to modify for your needs?... This post might just be for you.

People all over the world decided to take him up on it. At first, only people with extensive computer programming knowledge would be able to do anything with that early public version of Linux. These people started to offer their help. The version numbers of Linux were getting higher and higher. People began writing programs specifically to be run under Linux. Developers began writing drivers for different video cards, sound cards and other gadgets inside and outside your computer could use Linux. Nevertheless, throughout most of first part of the 1990's Linux did not get out of the 'GURU' stage. GURU is a term that has evolved to mean anyone who has special expertise in a particular subject. That is, you had to have special expertise in how computers worked to be able to install Linux in those days. Linux, at first, was not for everybody.

Other popular software companies sold you a CD or a set of floppies and a brief instruction booklet and in probably less than a half an hour, you could install a fully working operating system on your PC. The only ability you needed was knowing how to read. Those companies had that intention when they actually sat down and developed their operating systems. Linus Torvalds didn't have that in mind when he developed Linux. It was just a hobby for him. Later on, companies like Red Hat made it their goal to bring Linux to the point where it could be installed just like any other operating system; by anyone who can follow a set of simple instructions, and they have succeeded. For some reason, though, Linux hasn't completely lost its 'Gurus only' image. This is largely because of the popular tech press' inability to explain in a meaningful way what Linux is. The truth is that few tech reporters have real life experience with Linux and it is reflected in their writing.

Where Linux is Today

Today, Linux is enjoying a favorable press for the most part. This comes from the fact that Linux has proven to be a tremendously stable and versatile operating system, particularly as a network server. When Linux is deployed as a web server or in corporate networks, its down-time is almost negligible. There have been cases when Linux servers have been running for more than a year without re-booting and then only taken down for a brief period for routine maintenance. Its cost effectiveness has sold it more than anything else. Linux can be installed on a home PC as well as a network server for a fraction of the cost of other companies' software packages. More reliability and less cost - it's ideal.

If you're reading this, you're obviously here to learn how to use Linux. Any learning experience means opening up to new ideas and new ways of doing things. As mentioned before, Linux is in the UNIX family of operating systems. UNIX is primarily designed to be used by professionals. You will have to learn some UNIX concepts in this lesson, but that doesn't mean that Linux is a professionals-only operating system. In fact, most major versions of Linux are designed to be as user-friendly and as easy to install as any other operating system on the market today.

Now that you know what Linux is and how good it is, there's one more thing we have to do - install Linux!