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LINUX – THE SUCCESS OF OPEN-SOURCE

First of all Linux is an OS – a software aggregation that manages hardware resources and provides an environment for applications to run. OS allows applications to store data, handle input and output user interactions.

However, Linux is also a kernel. Mostly the term "Linux" refers to the whole OS – ready distribution, but actually Linux is a heart of such OS – it's a mediator between the hardware and applications. Linux layer contains dozens of code lines that allow applications to communicate with hardware on higher level.

In 1991, while studying computer science at University of Helsinki, Linus Torvalds began a project that later became the Linux kernel. He wrote the program specifically for the hardware he was using and independent of an operating system because he wanted to use the functions of his new PC with an 80386 processor. Development was done on MINIX using the GNU C Compiler. The GNU C Compiler is still the main choice for compiling Linux today, but can be built with other compilers, such as the Intel C Compiler. Linus and over 100 developers worked on Linux over the next couple of year. The version 1.0 of Linux kernel was released in March 1994 [1].

Linux is an open-source project. The ideology of open-source claims that everyone can use, copy, study and change the code of software in any way they want as long as the source code is open and shared with others. Thousands of people have made improvements to the Linux source code so far. The open source led to the rise of Linux distributions – ready operation systems to be installed on computer [3].

Typically, the distribution consists of Linux kernel and a collection of applications. It could be either purely managed via terminal or have GUI. The latter is used on personal computers by users while the first one is more suitable for servers.

Your choice of distribution will depend on what you're trying to accomplish. There are literally hundreds of Linux commercial and non-commercial distributions. Ones are backed by companies while others are maintained by volunteers. The community tends to use Ubuntu, Debian, Mint, Fedora, Arch Linux, Gentoo and the other ones.

Linux is free. The source-code is freely available and you can run Linux on your hardware without having to be pay a licensing fee in the majority of cases. If your business depends on servers that are running Linux, having a commercial Linux distribution which you pay for and having someone that can provide support can be well worth your while.

The main reasons that led to the rise of Linux are the ability to freely use, change and maintain the source code. The idea of open-source has proven its efficiency by the existence of projects like Linux. The choice to make the code open is the crucial turn in software market. After Linux success many companies considered opening their code to the community. Even the most iconic evil competitor of Linux, Windows, recently claimed their sympathy for Linux. They have opened much of their code so far and have become the biggest source code container on GitHub.

REFERENCES

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