

Reasons for Developing the Open Source Software Usage Level

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REZUMAT: Suntem obișnuiți să ne îngrijorăm în legătură cu achiziționarea software-ului costisitor. Această problemă poate fi ușor îndepărtată luând în considerare software-ul „deschis”, care presupune un anumit software a cărui sursă poate fi modificată pe placul utilizatorului dar care, poate cel mai important, este gratuit.
Cuvinte cheie: software, sisteme de operare, Linux, distributii

1 Upon the Open Source Software

Open source software (OSS) is a rising star in today's technology. The term "open source" was coined by Eric Raymond and ratified in a meeting between himself, Richard M. Stallman, and other notable open source advocates. It is intended to replace the previous term, "free software," used by Richard Stallman. Despite the constant admonishment that the "free" in "free software" meant "Free as in speech, not as in beer," corporate-minded people were leery of the idea of software that could not be sold. With its rapidly growing market share and corporate and public interest to match, open source as a concept will not stay a fringe phenomenon for long; in fact, it is rapidly entering the mainstream.

The open source usage begins with operating systems. Bill Gates' Microsoft Windows family is in top of the preferences of most users worldwide. One reason would be the efficient marketing system, but also its user friendliness. Most users that are using a computer for the first time are pretty scared and it matters a great deal if the operating system will make it easier to them by being friendly and easy to use. We admit that Windows is

a very good operating system. Then what should stop us from using it? Simple answer: its price. In the not-so-developed Eastern European countries, in Romania for example, it is difficult to buy operating system license and also for other software one would use. In such situation it is a blessing that Linux exists and is a very reliable operating system. We shall get into details about Linux and its advantages in the next chapter.

For now common computer users are not aware of the benefits of other operating systems and as most of the schools teach Windows, some statistics show that Windows family was leading in 2001 with almost 50% within the operating systems. Anyhow these statistics are not 100% reliable and recent statistics are showing Windows as an absolute leader with almost 90% which is impossible because Linux' popularity has been growing since.

OS group	Percentage (March)	Percentage (June)	Composition
Windows	49.2%	49.6%	Windows 2000, NT4, NT3, Windows 95, Windows 98
[GNU/]Linux	28.5%	29.6%	[GNU/]Linux
Solaris	7.6%	7.1%	Solaris 2, Solaris 7, Solaris 8
BSD	6.3%	6.1%	BSDI BSD/OS, FreeBSD, NetBSD, OpenBSD
Other Unix	2.4%	2.2%	AIX, Compaq Tru64, HP-UX, IRIX, SCO Unix, SunOS 4 and others
Other non-Unix	2.5%	2.4%	MacOS, NetWare, proprietary IBM OSes
Unknown	3.6%	3.0%	not identified by Netcraft OS detector

Table no. 1. The operating systems percents among the users.
(Source: <http://www.dwheeler.com>)

2 Linux – the open source operating system. Linux Flavors

Linux is an open-source operating system published under the GNU Public License. Open source means that anyone is free to use and modify any of the actual source code. Companies and individuals can change the way the

operating system works to suit their own personal or business needs. Linux was originally developed by Linus Torvalds while he was a student at the University of Helsinki in Finland. Torvalds, originally working with Minix, (a small UNIX system) decided to create an operating system which would exceed Minix standards. His development began in 1991 when he released version 0.02. Since then Linux has undergone drastic changes. There are now many different distributions of Linux (sometimes referred to as flavors) which all use the same Kernel. This Kernel is still being developed by Torvalds and a group of programmers and releases are more and more frequent.

The Linux operating system is touted for its speed, minimal hardware requirements, security and remote administration. Linux is a fully featured operating system which doesn't have to cost a dime. You download many different distributions directly from the Internet and the support community is huge. Because of Linux's speed and stability it has become the operating system of choice for most types of servers and permeates the entire web market. In addition there is a plethora of software available free of charge for Linux.

If graphics matters to the user and the whole text based mode scares him a little then X Window system would save the situation. There are a few different interfaces available to choose from the two main ones being GNOME and KDE. Both of these have tons of features and are always being updated.

On a side note, Linux can be seen around the web as an overweight penguin who sits contentedly on whatever area he happens to be perched on. His name, for the record, is Tux. Tux was chosen by Torvalds to represent the Linux operating system years ago and he seems to have done a good job of catching on.

Linux comes in many "flavors" called *distributions*, each geared towards a different type of user. Below is a list of the mostly known distributions:

- Debian Linux
- Fedora Linux
- Gentoo Linux
- Knoppix Live Linux
- Mandrake Linux
- Red Hat Linux
- Slackware Linux
- SuSE Linux

Ubuntu Linux
Decebal Linux

Red Hat

Red Hat Linux is considered by many to be the best distribution for beginners. It is designed for those who simply want to get Linux working on their system with a minimum amount of effort. The advantage is that Linux can be learned from the top down rather than the bottom up as with many other distributions that require prior knowledge of the workings of Linux and Unix. Unfortunately, it is considered old and is no longer supported by Red Hat. If you desire something newer (or your hardware is bleeding edge, and require newer drivers), consider Fedora Core.

Fedora Core

Since the changes Red Hat made to the structure of their development team, they have handed over the maintenance of Red Hat Linux to the Fedora team, and their third release, Fedora Core 3 maintains the same look and feel of Red Hat 9 but with many new features, and up to date software packages. You can also consider getting FC 2.

Mandrake

Linux-Mandrake was once known as the "better Red Hat." This is because they used to wait a month or two after a major Red Hat release and redo the things that they thought Red Hat did wrong. But now Mandrake has evolved into its own fully developed distribution. Mandrake now competes with Red Hat for the easiest to install and use. Mandrake also touts itself on being one of the first to support new hardware and software. Mandrake is a good choice for someone who is just starting Linux and wants all the new hardware support. The best thing about Mandrake is that it is still Red Hat compatible so support is as plentiful as Red Hat support from the Linux Community.

Debian

Debian is a distribution for those who wish to dig deeper into the inner workings of Linux, yet still want the ease of maintenance provided by a package management system. Debian lacks many of the friendlier features of distributions like Red Hat or Mandrake, yet doesn't share the minimalist philosophy towards software management found in Slackware. Though Debian has a more strict interpretation of what constitutes "free" software, there are a wide range of packages available, and dependencies and upgrades are handled in a user-friendly manner through apt. Prior

knowledge of Unix and Linux is recommended. 3.0 is called "Woody" and the most recent release is 3.0r4.

Gentoo

Gentoo is a relative newcomer amongst Linux distributions, but offers fresh new ideas for installing, running, and maintaining a Linux system. Through the "Portage" system (which draws its inspiration from the FreeBSD "Ports Collection"), intermediate and advanced users can keep their system up-to-date quickly and easily. Like Debian, prior knowledge of Unix and Linux is recommended before trying this distribution. Gentoo will also work on PPC.

Slackware

Slackware is one of the oldest distributions of Linux. It lacks many 'user-friendly' features that can be taken for granted with many other distributions. However, for those who want to get into the guts of Linux, there is not a better choice. This gives the system administrator more power and control to make Linux exactly what he wants it to be (assuming he can wield all that power). To see how it used to be done back when Linux was still young, give this distribution a try.

SuSE

Originally begun as a German Linux distribution, SuSE is a popular distribution in Europe. Focusing on completeness, SuSE boxed sets include just about every application you may need in the base distribution (at the expense of lots of disk space). The YaST system configuration system centralizes many system maintenance tasks into a single user interface.

Ubuntu

Ubuntu is an ancient African word that means "humanity towards others". It embodies the spirit of open source software, which is built by the best software practitioners for the benefit of all humanity. Ubuntu, as most of the Linux distributions, includes more than 1000 pieces of software, starting with the Linux kernel version 2.6 and Gnome 2.10, and covering every standard desktop application from word processing and spreadsheet applications to internet access applications, web server software, email software, programming languages and tools and of course several games.

Decebal

This is a distribution that was developed at the initiative of two Romanian students from "Vasile Goldiș" West University from Arad. It is said to be a very successful and reliable operating system. It overtakes a lot of good points of Debian and FreeBSD but also uses a lot of innovating ideas, such

as initializing scripts and the original firewall system.

Open Source is a phenomenon that is growing in momentum, membership, and market share. It has already touched the lives of everyone who uses the Internet (since many of the services and programs that make the Internet go are either open source, or based on an open source program). It will continue to do so, and anyone required to keep up with technology in the world today needs at least some familiarity with its precepts and concepts.

3 Conclusions

Free and open source software is software that users have the ability to run copy, distribute study, change, share and improve for any purpose. Open source software is an ideal platform for business and education, in the home or at the office.

References

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*** <http://www.w3schools.com>

*** <http://www.dwheeler.com>