## THE PENGUIN ADVANCES

The number of private companies adopting Linux grows. And the Federal Government has decided to take the fight against Microsoft. By Marineide Marques

When the Finnish Linus Torvalds created Linux, a decade ago, there were many prophecies about a quick revolution that the free operational system would unleash, taking down the competitors in the market. Recent data indicates that the changes were not so radical, as predicted by many analysts, but they have started to take place in a quicker pace now.

In Brazil, a recent survey by the Yankee Group with 200 of the largest Brazilian private companies indicates that 14% have the intention of adopting Linux this year. The survey stresses another data, obtained from the consulting firm IDC Brasil, specialized in the sector: 17% of corporate servers in Brazil use so-called free software or open systems.

A small effect. To Mr. Oliveira and Mr. Madrid, from Microsoft, the use of Linux is restrict. The list includes retail sellers such as Carrefour and the Renner Chain Stores, banks like HSBC and ABN Amro and the phone carrier GVT. "The main reason for changing are the costs, performance and security", affirms Charles Schweitzer, an analyst from IDC Brasil.

Contrary to the so-called proprietary software, whose use is based on the payment of licenses, the open systems, as the name itself explains, provide open access to the source-code, the group of commands giving shape to a computer program. This allows the user to get to know exactly what is inside the software and modify if at will. It is the dream of every nerd to get to know, for instance, the source code of Microsoft Windows, a secret as pursued as Coca-Cola's formula.

The possibility of adopting a system that can be adapted to your business, or customized, using the managerial jargon, allied with the lower cost regarding proprietary systems, seduces a larger and larger number of companies.

Carrefour has been testing Linux for a few months in more than one hundred cashiers. "We have been studying the performance of the machines to develop a plan of migrating all the supermarket chain", explains the information technology manager of the retail chain, Andre de Souza.

Carrefour has more than seven thousand cashiers all over Brazil and is an important newcomer to the free software allies. According to Souza, only in license costs, the economy is 30%. Despite being free, Linux is not gratis. Anyone can download the program from the Internet and use it, but the companies usually purchase the software from distributors, in a package that includes support and maintenance. Other advantages perceived by Carrefour are speed and stability. "A cashier running Linux takes 30 seconds to perform an operation that would take three minutes using another operational system", says Souza. He emphasizes also the earnings, even though they are not measurable, of independence by suppliers, that is, not to be stuck with only one manufacturer, since Linux is developed by many companies. The manager does not cite names, but who knows a bit better the universe of bits and bytes knows that he is talking about Microsoft, owner of Windows, the platform that dominates 60% of the servers of Brazilian companies, according to numbers provided by the Fundacao Getulio Vargas (FGV). Servers are powerful machines that manage computers integrating the same network.

The advance of Linux in the corporate market is not overlooked by Microsoft, but the giant founded by the billionaire Bill Gates sees open systems as niche applications. "In ten years, Linux has only been able to get a restrict participation in specific segments, such as retail and web", comments the strategic manager of Microsoft, Eduardo Campos de Oliveira.

It is not like this. Little by little Linux has started to conquer the sector the invests the most in information technology, the banks (the forecast is that expenditures of more than R\$11,5 billion will take place in 2004). It is a territory where Microsoft has always felt at ease. HSBC has started tests with Linux in two areas critical for banks: cashiers and ATM's. The idea is to migrate part of the machines within three years. As of today, Linux already controls all the printing system of the network of branches and runs some of the internal controls of the bank. According to the institution numbers, the use of Linux propitiates an economy of up to 50%, depending on the area. "The open platform favors strategic matters", informs the information technology operation director of HSBC, Leignes Andreatti.

At the government, Sergio Amadeu, President of the ITI, wants to increase its use. The biggest challenge of the free operational systems is to prove that they can support all the critical applications of a company, afterall these systems have conquered some terrain, but they still lack companies which use them in 100% of their machines.

The Renner chain stores are an example of betting at Linux: from the 80 servers of the company, 60 run Linux. The other 20 work with Sun's operation system, which will be replaced by free software as they get old. "The option is for the best, regardless of cost", informs the general technology manager, Luiz Agnelo Francosi.

As a proof of confidence in open systems, Renner will be the pioneer in implementing a system of control of purchases and inventory based on Linux. "We will be the first in the world to use this version because we believe in the platform", justifies the executive. The success of the experience of the Brazilian chain with free software has already become a case study for its parent company, the American JC Penney, but the option has not been repeated there.

The more the number of companies that use open software, the more the offer of providers

for these systems grows. Hardware and software world giants like HP and IBM have realized that one cannot ignore this expansion and have incorporated the platform to their machines. "Practically all the HP line can run Linux. Even if the client is not going to use this solution, he prefers a machine that can give this diversifying option in the future", comments the marketing manager for servers of the company, Jaison Patrocinio.

The same situation takes place at IBM, where all the machines are manufactured able to run Linux. "The model of development and distribution of free software is an irreversible fact, a force that no one can ignore", affirms the Linux technology manager of the software division of IBM Brazil, Tarcisio Lopes.

"This is a business model which cannot be self-sustainable", challenges Mr. Oliveira from Microsoft, who questions the possibility of making money with Linux. The doubt originates from the fact that every upgrade made in the program must be share-alike so that other users can know the improved version. "Who will pay for this inovation, if it cannot be private?", asks the Microsoft officer, stressing out that the leading company spends US\$7 billion in research & development.

Created in 1991 by Torvalds, at the time a student of computer science in Helsinki, and having as its mascot a penguin, Linux has made the nerds happy, thanks for the possibility of access to its source code. In only a few time, it has caught the attention of companies. In order to avoid that someone would appropriate the improvements to make a closed version, Torvalds has created a special use license that forbids the original code or any subsequent modification made upon it to be closed.

In Brasil Linux is a synonym of Conectiva, a company base in Parana which is the leader of sales for the system and services based in open source software in Brasil, with more than 70% of the installation in the country, according to IDC. Founded in 1995, it has conquered investors such as the venture capital funds Latin Tech and the ABN Amro bank. In the last four years, the company has sold more the 100 thousand programs, the majority to the government, and it has been training 15 thousand professionals every year, according to Rodrigo Stulzer.

The strong dependency regarding governmental purchases has made Conectiva's income to plummet last year in 30%. "The government has only spent 7% of its technology budget because of the cuts of 2003", explains Stulzer. More the proving that the Linux business model works, Conectiva now needs to secure the sustainability in spite of the shrinking of government purchases and the increase in competition with multinational companies.

The largest interest of private companies does not serve only to Conectiva. It reinforces the position of the federal government, a defender and fostering agent of the adoption of free software. "What is now in dispute is the future, not the present", says Sergio Amadeu, president of the National Institute of Information Technology (ITI), the governmental body

subordinated to the Secretary of State which has the function of disseminating free software among Ministries, state owned companies and other governmental bodies.

Being a former officer at the city of Sao Paulo public administration, Amadeu has decided to wage war on the largest manufactures of closed operational systems, especially Microsoft. For the president of the ITI, the proprietary software model makes it impossible to fight against digital exclusion in the country, due to the constraint of having to pay license fees to foreign companies. "A country which is not digitally included like Brazil has paid US\$1,1 billion in software licenses in 2002. This amount tends to grow", he says. "It is a war from the technological standpoint", he affirms, citing China and India as allies in the batlle to "free the government and its Ministries from the market reserve of proprietary software".

In defending free software, Mr. Amadeu does not abstain from criticizing Microsoft, accusing the company of a "drug-dealer practice" for offering the operational system Windows to some governments and cities for digital inclusion programs. "This is a trojan horse, a form of securing critical mass to continue constraining the country".

The declaration has caused an evident discomfort with Microsoft. "One shall not underestimate the capacity of the user to decide as if he or she had not free will in the future", counters Mr. Oliveira. Mr. Lorenzo Madrid, one of Microsoft's Directors for the public sector and educational programs, says he is worried with the ideological component intricated in the government decision. "We support competition based in technology and price".

The government promises to include in the future tenders for purchasing equipment for governmental branches a mandatory provision in favor of free software, what would exclude Microsoft from a business in which it has earned more that R\$55 million in 2003, or 6% of its total sales in the country. "We want to be treated with absolute neutrality", says Mr. Madrid.

The demand of the American giant does not move Amadeu, who promises to put some spice into the discusion. Until June, the federal government plans to launch an advertising campaing in support of free software. Until the end of 2004, four Ministries will have migrated their servers to free software: the Ministry of Science and Technology, Energy and Mines, Culture and Foreign Relations. To Amadeu, this will be a decisive year to win against the "strategy of fear, uncertainty and doubt", as he classifies the business model of Microsoft. The success of free software will be proved by time, but the fight against Bill Gates giant company will be fought in the present.