

# World News

## ■ Old hardware revived in Jamaica

An old yellow ISO container, some discarded PC hardware and Linux – alongside with enthusiasm, that's almost all you need to build a mobile IT training and media lab. Such a facility called

Since early May a local network consisting of four Macs and eleven Pentium I, II and III machines (most of them assembled by hand reusing hardware parts of several old donated PCs) is up and running, however offline for the time being until a wireless telecommunications link is installed.

The PCs (one server, ten clients) run Red Hat, Debian and SuSE Linux. Whilst the desktop PCs are dedicated to merely educational purposes (e.g. developing webpages for the intranet which eventually will go online one day), the one Pentium III PC serves as a multimedia desktop alongside with the Macs to form the media area of the container.

Here the focus is on giving local people the opportunity to express themselves in an artistic manner, e.g. creating music videos. ■

<http://www.fraw.org.uk/jamaica/>  
<http://www.container-project.net/>



Paul Mobbs

“The Container” was what a handful of Jamaican, Canadian and British activists assembled for the benefit of the inhabitants of rural Palmer's Cross in Clarendo/Jamaica, giving access to new media of all sorts.

## ■ Free software laptops in Spain

If only you didn't have to install it first! Linux on laptops is still something for the advanced Linux users, not for the newbie next door. In Spain this might change soon when the first notebooks equipped with pure free software enter the local market.

In May 2003, a Spanish company called “Lambdaux Software Services” reached an agreement with “Infinity Systems”, the manufacturer of low cost notebooks of the “Airis” brand, to distribute them with free software preinstalled. 150,000 of these computers are waiting to be sold in 500 salespoints throughout the country, free of any proprietary software, and the hardware chosen to be totally compatible with Linux.

The notebooks will ship with a Debian based distribution developed by Lamb-

daux Software Services including OpenOffice and 84 other free software applications for which customers – the main target are small and medium sized enterprises – will be charged 15 Euros on top of the price of the hardware (which had not been published yet when this magazine went to print).

“Lambdaux Software Services” is a spinoff of the Universidad Rey Juan Carlos in Madrid, and some of its developers were part of the LinEx (see issue 31, p. 13) 1.0 development team. Meanwhile the university itself is eager to become Europe's first university to base its entire IT infrastructure on free and Open Source software solely – at least the first step, an evaluation plan has been set up already. ■

<http://www.lambdaux.com/>  
<http://www.infinity-system.com/>

## ■ Munich goes Linux

Not even Steve Ballmer, interrupting his skiing holidays in April to pay Munich's lord mayor Christian Ude a visit, could help: Germany's third-biggest city, famous for its beer-festival “Oktoberfest”, is going to migrate not only its servers but also its desktop computers from Windows NT to Linux, all together about 14.000 machines. For Microsoft, this is particularly bitter news as the German headquarters of the software giant resides in Unterschleißheim, a small town on the outskirts of Munich.

The decision in favor of the penguin by the city council for the time being marked the end of a breathtaking thriller starring not only Ballmer and social democrat Ude, Microsoft, SuSE, and IBM in the role of the spinmaster, but brought together interesting political alliances: Whilst the conservative Christian-Socialists were the only party in the city parliament to fight Microsoft's battle, the pro-Linux faction ranged from local gay activists to the lone representative of the ultra-right-wing Republicans.

Although SuSE's last bid arguably altered the course for good, the victorious Social Democrats stand firm in the position that the decision in favor of Linux and a yet to be chosen Open Source office software is of fundamental



nature and does not imply contracts with SuSE or IBM. These decisions will be made next year, and other companies might come into play. For the time being, only one thing is clear – the migration will be done slowly, over the course of several years. And although the city hopes to save lots of money with it, the argument of more flexibility and independence from one single company couldn't be overheard. ■

## ■ Tux plays out exam results for South Indian State

When close to 600,000 students in Kerala, India's most literate state, sat down to write their secondary school-leaving certificate (SSLC) examinations in mid-April, little did they realize that a month later, as they scrambled through the Internet for their results, the one Web site that would withstand the heavy traffic rock steady would be running on Linux and Red Hat's GPL'd kernel-based web server Tux 2.0.

The brains behind the show came from Linuxense, a small start-up based in Trivandrum, the capital of Kerala. Said K. Anil Kumar, the company's Vice President Operations and Engineering: "We were looking for an opportunity to test Tux in a real high-traffic situation. In Kerala, we could not think of a web traffic greater than the online look-up of SSLC results."

Chasing this challenge, Linuxense talked to Asianet Satcom, the company that runs the portal Keralaonline.com, to provide the necessary bandwidth. Kerala's Board of Public Examinations hands out the SSLC results to media outlets as MS Access files or as MS SQL server dump.

Since Tux is currently limited to serving static web pages, the challenge was to pre-cook pages for every register number of the examination candidates, which this year totalled an all-time high of 593,276. That meant creating a system which could build around 600,000 pages in under 45 minutes.

Linuxense decided to go with Java mainly because of its versatility with database connectivity. To make up for I/O delays, the company designed a multi-threaded system, where while one thread fetches data, another makes the page.

The resulting page generation program completed all the pages in a little more than 45 minutes and zipped them into two laptops - one an IBM Thinkpad (PIII, 800 MHz, 256 MB RAM, running Red Hat 7.2) and the other a Dell Latitude (1.2 GHz, 512 MB RAM, running Red Hat 9.0). Pages were generated in batches of 50,000 and transferred to the web server, a Compaq Desktop PC (PIV, 1.9 GHz, 256 MB RAM and a 7200 RPM IDE HDD).

Though Linuxense underestimated the size of the pages generated and thus was a bit slow off the blocks on the first day,

it more than made up the next day, when the Higher Secondary Examination (HSE) results were declared.

Of the 18 web sites hosting the results, all but three crashed, unable to handle the hits. Of the three successful sites, Linuxense's was the fastest, with an average connect time of 0.007 second during the peak hour and responding 2.7 times faster than the next best web site, which was running Microsoft IIS/5.0 on Windows 2000. Traffic began logging at 20 hits per second, which rose steadily.

At 12:08:50 p.m. on May 16, Tux served 35 hits per second. During the peak period, it transferred 750 MB of data and withstood nearly 800,000 hits without any problem. According to Anil Kumar, "The performance could have been boosted further by using a faster hard-disk or the best alternative - a RAM disk." In any case, more proof that FLOSS solutions do work well in high-pressure, deadline-oriented situations. ■

<http://www.linuxense.com/>

<http://results.keralaonline.com/>

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