



## Case Communications February 2007 Newsletter

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### Welcome,

Welcome to the Case Communications February 2007 Newsletter.

#### **Did Microsoft undercut open source in Birmingham?**

Birmingham City Council were planning to roll out 1,500 PC's running Linux across its libraries , but after finding Windows XP was cheaper it abandoned Linux after just 200 PC's

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#### **BT's New Call Pricing Policy**

BT's new charging strategy for business users will result in a significant revenue increase.

[\[More\]](#)

#### **European Commission endorses 'Open Source' software**

The European Commission has issued a ringing endorsement of open source software, producing a confidence-boost for businesses considering the deployment of Linux and other free software.

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#### **French school children get free open source software on USB stick**

175,000 School children and apprentices in the Ile-de-France (Greater Paris) region of France will be given a USB key loaded with open source software to make them aware of alternatives to proprietary software.

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#### **Forrester Reports Enterprises Slowly Migrating to Voip**

Few European firms have completed the migration to IP PBX's and IP Contact centres.

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#### **25% of businesses will be running mission-critical applications on a Linux platform by 2009**

25% of businesses will be running mission-critical applications on a Linux Open source operating system by 2009, and by the end of 2007 there will be 17% of businesses using

Linux

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### **BT Broadband Chaos**

BT say its impossible to provide a broadband service to a customer living on an estate that only has fibre, and yet BT have been providing that customer with broadband for the last few years. How can an organisation get into such a mess?

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### **Report predicts that the Internet will be able to deliver smells as fast as data within the next decade.**

These were the predictions which emerged from a wide ranging survey produced by the Southern Korean government to determine what consumers wanted from future technologies.

The forecast came in a wide-ranging survey produced by the South Korean government to find out what consumers will want from future technologies.

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### **Are you getting the broadband rates you think you are?**

While Broadband suppliers are advertising download speeds of up to 8Mbps only a small number of customers are actually reaching those data rates, a new survey reports.

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### **British Scientists aim to make robots that interact with people emotionally as part of a European project**

Feelix Growing is a research project involving six countries, and 25 roboticists, developmental psychologists and neuroscientists

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**Did Microsoft undercut open source in Birmingham?**

Industry experts have suggested Microsoft offered Birmingham special discounts to sway the balance in favour of XP. But Microsoft firmly denied these allegations. Asked whether Microsoft had offered special discounts to Birmingham, Nick McGrath, head of platform strategy said: "No, not all. We are in discussions with every single local authority. There is a common buying framework."

McGrath added: "The decision was very much taken by Birmingham."

Birmingham City Council is slightly less clear on this point. When asked whether the council managed to get a better deal from Microsoft as a result of its trial, IT chief Glyn Evans said: "We did not seek a better deal from Microsoft nor was that an objective [stated or unstated] of the project." However, Evans didn't state whether any discount had been received.

Many observers have claimed Microsoft offers inducements to local authorities to stay with Windows if they show a willingness to switch to open source.

Laurent Lachal, senior analyst at Ovum, said: "Microsoft is going out of its way to lower prices to get deals. If it lowers it to the point where it makes no sense to deploy open source, then it is a good deal for the organisation."

Bob Griffiths, international secretary at Socitm, the association for public sector IT professionals which supported the Birmingham project through the Open Source Academy, acknowledged Microsoft had been "involved in negotiations" with the council. He said he was unsure whether Birmingham had gained an advantage through its Linux pilot in bargaining with Microsoft but added that other councils had successfully used that tactic.

Griffiths said: "I'm not sure that's the case with them. But other authorities have claimed advantages."

The London Borough of Newham has been the focus of such allegations after it reverted to Windows in 2004 after trialling Linux, although it denies the allegations.



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**BT's New Call Pricing Policy**

Surreptitiously, BT have changed their charging strategy to business users; for most calls the minimum call charge has been replaced with a call connection fee of 3p per call. This will result in a significant revenue increase; for example the cost of a one minute national call has increased from 8p to 11p.

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**European Commission endorses 'Open Source' software**

The European Commission has boosted confidence in open source software for organisations considering the deployment of Linux and other free software.

In a lengthy report into business deployments of open source software, published in full late last week, the EC said in "almost all cases" cost savings would be made by switching from proprietary to open source software.

The bold findings come in stark contrast to assertions by Microsoft that Linux cost savings are a myth.

The Commission's work is based on detailed analysis of open source projects in six European Union countries.

According to the report, which was authored by academics at the United Nations University in Maastricht, Netherlands: "Our findings show that, in almost all cases, a transition towards open source [produces] savings in the long-term cost of ownership."

Microsoft has attempted to persuade IT professionals and businesses that Windows can be cheaper than Linux, through its Get The Facts campaign. Get The Facts cited examples where Redmond's software offered a cost advantage over open source.

The EC report also issued encouragement for organisations considering the free Open Office applications suite. "Open Office has all the functionalities that public offices need to create documents, spreadsheets and presentations," the report said. "Open Office is free and extremely stable." It added that users were equally as productive with Open Office as they were with proprietary software.

But the report issued two notes of caution. Firstly, it said that short term costs would be higher for organisations migrating, even partially, to open source, largely because of the initial cost of training. Secondly it said some workers may feel undervalued if they are required to work with free software.

The EC has taken several strides towards encouraging the development

of open source software.

In October, it granted €3m towards a project, called SQO-OSS, to test the quality of open source software. And just days before, the Commission extended its open source web portal - the Open Source Observatory - to develop interoperability between applications.

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**French school children get free open source software on USB stick**

The keys, which will contain a 'portable office', will be given to 130,000 secondary school pupils and 45,000 first-year apprentices at training centres at the start of the 2007 school year.

The 'portable office' will include an office software suite, an internet browser, an email client, an IM client and audio and video player software, according to the local council. The open source software will work in the Windows environment.

The project will "represent for students a tool of freedom and mobility between their school, cyber cafés and their home or friends' PCs", the council said. The operation will cost €2.6m.

The president of the local council, Jean-Paul Huchon, is a self-confessed "partisan of the rebalancing of the supply of proprietary and open source software", who previously welcomed the launch of the Firefox 2 browser and led the support for a creation of a competitiveness hub based on open source.



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**Forrester Reports Enterprises Slowly Migrating to Voip**

According to Forrester, few European firms have completed the migration to IP PBX's and IP Contact centres. Cost remains the predominant issue, indicating that putting together the business case for migration to voice over IP remains problematic





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**25% of businesses will be running mission-critical applications on a Linux platform by 2009**

According to a survey by Saugatuck Technology and Business Week Research Services about 25% of businesses will be running mission-critical applications on a Linux Open source operating system by 2009, and by the end of 2007 there will be 17% of businesses using Linux

But this follows the revelation by IDC that after four years of double digit growth, sales of Linux servers are slowing down. Although Linux servers now represent 11.8% of all server sales, growth for the third quarter of 2006 was about 16% that for the 3rd quarter of 2005.

HP sells the most Linux Server, but it is less actively committed to Linux than IBM and latterly Sun.

Linux has been ported to more machines than any other operating system and it is challenging Symbian for dominance of the smartphone market. Elsewhere it making inroads into embedded systems.

It is also being sold by Microsoft, after a deal with Novell, which finally acknowledges that users may want both Windows and Linux in their installations.

**Where is Linux used?**

As well as in the enterprise, on midrange systems and mainframes Linux is favoured for supercomputers. It is also widely used by communications product vendors due to the vast array of features and functionality found within Linux Kernels. The benefit for the customers are Linux based products offering levels of performance and functionality at prices a fraction the price of proprietary communications products from the brand leaders, with the added benefit of no licence fees. A large number of new IP telephony products are also using Linux and the soft PBX application 'Asterix'

**What is it for?**

Linux is the foundation of the Lamp (Linux Apache, My SQL/postgreSQL, Perl/PHP/Python) development stack. Linux-based enterprise applications are also written in Java and C++. Although generally seen as an alternative to Microsoft it can be used as a platform for C# using the Mono version of .net.

**What makes Linux Special**

Linux is generally reliable and secure, without the architectural upheavals of proprietary operating systems. Although technically the

operating system and support are free, the question of cost of ownership has been muddied by hired teams of analysts. Microsoft naturally claims Windows is cheaper to own.

What is not in dispute is the value of collaborative efforts that has gone into Linux. A study of one Linux distribution found 55 million lines of codes that would have cost a supplier £1bn to develop.

### **What is predicated for Linux in 2007?**

2007 is predicated to be the year when Linux virtualisation projects bear fruit, enabling multiple virtual systems to run in a single location.

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**BT Broadband Chaos**

We recently had a request to provide broadband services to an individual living on a relatively new housing estate. On initial checks we found that the local BT exchange had been enabled for ADSL a broadband installation seemed straightforward.

When we requested the service for this customer we were told that he had already ordered a service in December 2006, but to date still had not had the service installed.

The situation was made even more complex by the fact that when the estate was first built BT had installed Fibre to every house on the estate, and BT stated they could not provide broadband as none of the houses had copper available.

Further research soon revealed that shortly after the estate was built some of the residents asked for broadband and in their wisdom BT installed a 'copper overlay' network on top of their fibre for a small number of houses.

By coincidence one of the houses that had Broadband installed a couple of years ago is owned by a Case Communications development engineer and we asked him to apply to BT for broadband to see what BT's reaction was. They told him that unfortunately they could not provide him with a service, as they did not have copper in the area. Even after he told them they were providing him with a broadband service over copper that they had laid, they had no record of the installation nor of any copper or of any broadband customers in that area.

We think the next stage is for our development engineer to stop paying BT for a service they are delivering but which they say is impossible to deliver.



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**Report predicts that the Internet will be able to deliver smells as fast as data within the next decade.**

It also predicted that by 2012 batteries in mobile phones will last perhaps two months between recharges.

The experts taking part in the survey said that by 2018 robots will be routinely carrying out surgery.

The long-range predictions in the survey came from interviews carried out with about 3,500 technology experts in South Korea.

The country has long been known for its dedication to hi-tech.

Net-using citizens enjoy some of the highest speed broadband connections in the world, widespread high-speed mobile networks and the country's education system makes extensive use of the net to teach and track pupils' progress.

The hi-tech panel behind the report believed that, by 2015, the net will be used to deliver data about smells to a fragrance cartridge sitting next to a computer or other device accessing the net.

By 2015 the report suggests that soldiers will wear bulletproof and waterproof battle dress that can also change its appearance to match its surroundings.

Available soon after, by 2018, will be robots small enough to swim along blood vessels in the human body finding, probing and healing any health problems they come across



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**Are you getting the broadband rates you think you are?**

According to 'think broadband.com the average UK broadband download speed is now 2Mbps, up from 512Kbps three years ago.

The figures are based on more than a third of a million speed tests carried out by the website's users.

But many people who have been sold "up to 8Mbps" services are still getting substantially slower connections.

"Compared to a couple of years ago the average has gone up," confirmed Andrew Ferguson, editor of thinkbroadband.com.

"But the survey shows that whilst a number of providers are marketing products as an 'up to 8Mbps' service, it is clear that some of them have a fair proportion of customers still on fixed 512kbps, 1Mbps or 2Mbps services." Maximum speed For some customers the maximum speed they can attain is tied to the quality of the telephone line and distance from the exchange. But the report said some broadband providers were keeping people on fixed connections to save costs.

"Because the broadband they are giving people still fits into the description of 'up to 8Mbps' that they are selling people, they think that's fine." Mr Ferguson said people should be told that the connection they are getting is "rate adaptive".

"People see the 'eight' and that sticks in their heads. Rate adaptive ADSL means it runs as fast as the line can tolerate."

He encouraged people to ask their providers exactly how fast their connection was likely to be before signing new deals. The fastest connection recorded in the UK was a customer of internet service provider Be at slightly more than 21Mbps.

Mr Ferguson said: "That customer must obviously live very close to the exchange. They are within 100 to 200 metres of the phone exchange." Speed improvements Be is among a number of firms,

including Bulldog and UK Online, who have invested their own money into ADSL2+ technologies, which offer substantial speed improvements.

But these services are often limited to urban areas. BT Wholesale is currently trialling ADSL2+ technology, which it is expected to roll out to other internet service providers in the next 24 months.

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**British Scientists aim to make robots that interact with people emotionally as part of a European project**

Co-ordinator Dr Lola Canamero said the aim was to build robots that "learn from humans and respond in a socially and emotionally appropriate manner".

The 2.3m euros scheme will last for three years. "The human emotional world is very complex but we respond to simple cues, things we don't notice or we don't pay attention to, such as how someone moves," said Dr Canamero, who is based at the University of Hertfordshire.

**Sensory input**

The project involves building a series of robots that can take sensory input from the humans they are interacting with and then adapt their behaviour accordingly.

Dr Canamero likens the robots to babies that learn their behaviour from the patterns of movement and emotional state of the world around them. The robots themselves are simple machines - and in some cases they are off-the-shelf machines. The most interesting aspect of the project is the software.

Dr Canamero said: "We will use very simple robots as the hardware, and for some of the machines we will build expressive heads ourselves. "We are most interested in programming and developing behavioural capabilities, particularly in social and emotional interactions with humans."

The robots will learn from the feedback they receive from humans. "It's mostly behavioural and contact feedback.

"Tactile feedback and emotional feedback through positive reinforcement, such as kind words, nice behaviour or helping the robot do something if it is stuck."

The university's partners are building different robots focusing on different emotional interactions.

**'Detect expressions'**

The robots will get the feedback from simple vision cameras, audio, contact sensors, and sensors that can work out the distance between the machine and the humans.

One of the things we are going to use to detect expressions in faces and patterns in motion is a (artificial) neural network."

Artificial neural networks are being used because they are very useful for adapting to changing inputs - in this case detecting patterns in

behaviour, voice, movement etc.

"Neural networks learn patterns from examples of observation," said Dr Canamero.

One of the areas the robots will be learning from is human movement.

"Motion tells you a lot about your emotional state.

"The physical proximity between human and robot, and the frequency of human contact - through those things we hope to detect the emotional states we need."

The robots will not be trying to detect emotional states such as disgust but rather will focus on states such as anger, happiness, loneliness; emotions which impact on how the robot should behave.

### **'Imprinted behaviour'**

"It is very important to detect when the human user is angry and the robot has done something wrong or if the human is lonely and the robot needs to cheer him or her up.

"We are focusing on emotions relevant to a baby robot that has to grow and help human with every day life."

One of the first robots built in the project is exhibiting imprinted behaviour - which is found among birds and some mammals when born.

"They get attached to the first object they see when born.

"It is usually the mother and that's what makes them follow the mother around.

"We have a prototype of a robot that follows people around and can adapt to the way humans interact with it.

"It follows closer or further away depending on how the human feels about it."

Dr Canamero says robots that can adapt to people's behaviours are needed if the machines are to play a part in human society.

At the end of the project two robots will be built which integrate the different aspects of the machines being developed across Europe.

The other partners in this project are the Centre National de la Recherche Scientifique, Universite de Cergy Pontoise, Ecole Polytechnique Federale de Lausanne, University of Portsmouth, Institute of Communication and Computer Systems, Greece, Entertainment Robotics, Denmark and SAS Aldebaran Robotics, France.