

## THE MONTH IN FOCUS

## BREAKING NEWS

As we were going to press Barclays announced it was shutting its ISP, Barclays.net. Elsewhere, Intel and AMD both released new processors – Intel's 2.2GHz vs AMD's Athlon 2000+. This year will see the big shoot-out between the chip firms, so watch this space.



## OTHER NEWS

## 22 Looking good

Analysts and the government say broadband is up, but the hype hides disappointing numbers.

## 23 Plugged

AOL's instant messenger service suffered from a security hole but is now fixed, the company says.

## 23 Ding dong

Oftel is finally unpacking its gloves and getting into the ring with overcharging mobile phone firms.

## 24 Moving on

You will soon be able to buy Ginger, the much-hyped scooter now called the 'Segway Human Transporter'.

## 25 Hot debate

European telecoms ministers say 'non' to spam, but are now at odds with the European Parliament.

## The broadband future is astoundingly rosy, allegedly

Research firm Jupiter says this year will see realisation of *Jetsons*-style future

In a somewhat rose-tinted report, research company Jupiter predicts that 2002 will be dominated by an explosion in the take-up of broadband access, digital television and Napster-style music portals.

Jupiter forecasts a massive growth in the number of broadband users throughout Europe, which will be great news for e-commerce and competition minister Douglas Alexander, who has championed the benefits of broadband since he took over from Patricia Hewitt earlier this year.

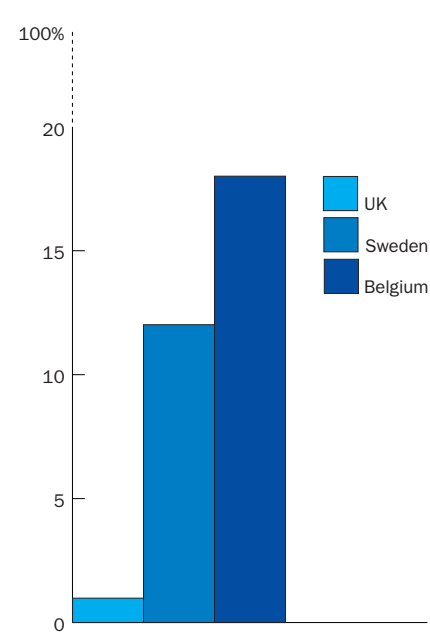
But not all the evidence agrees with Jupiter's or the government's outlook. Jupiter predicts a three-fold growth in

broadband take-up in the UK in 2002, but considering only one percent of the population has so far signed up, this isn't as much as it sounds. Three percent will still leave the UK trailing behind Sweden and Belgium which have 12 and 18 percent of their population on ADSL respectively.

"In 2002 we expect to see technology playing an important part in the development of the market, as well as a continued increase in the number of consumers going on to the internet," said Mark Mulligan, data analyst at Jupiter.

Despite this growth, Jupiter does not think broadband will reach 'critical mass' (15 percent of homes) until 2006. This is at least a year after e-commerce minister Douglas Alexander, intends us to be the internet hub of Europe.

↓ Current levels of broadband access



As a consolation, the UK has one of the highest penetrations of digital TV in the world. Research firm IDC agrees that interactive TV is set to grow, predicting that it will reach 70 percent of homes by the end of 2002.

## AOL security risk blocked

A security hole in ISP AOL's instant messenger service, AIM, which may have let hackers gain access to thousands of subscribers' machines, has now been resolved, confirms the company.

"Users should not be concerned. There was a hole in our server, which we have now fixed," said AOL spokesman Andrew Weinstein. "There is no need to download any patches."

The hole, which was discovered by US security firm w00w00, threatened to leave thousands of AOL's subscribers who run the Windows version of AIM (all versions up to and including 4.7) open to outside attack.

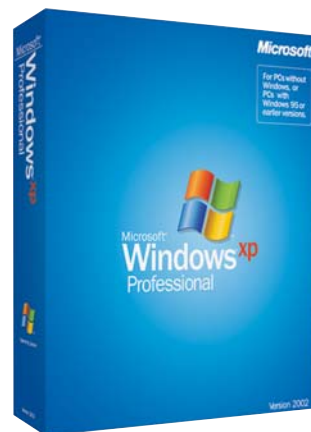
The flaw lay in the applications that allow users to add people to their buddy lists and play online games.

Caused by a so-called 'buffer overflow' problem, the security hole was similar to that found in Windows XP's plug-and-play facility before Christmas, allowing hackers to take control of victims' PCs. A US government computer security agency responded to the XP hole by recommending that users consider turning off the UPnP (universal plug and play) service to prevent hackers from breaking in to their systems.

The recommendation, which follows a patch offered before Christmas by Microsoft, was posted on the website of the FBI's National Infrastructure Protection Center after discussions with Microsoft concerning UPnP's vulnerability.

**"Users should not be concerned. There was a hole in our server, which we have now fixed. There is no need to download any patches"**

Andrew Weinstein, AOL



## A touch XPensive, perhaps?

Nearly two months after the launch of what Microsoft called one of its most important products ever, the Windows XP operating system has failed to sell more copies than its predecessor did in the same period after its release.

From its launch on 25 October to end of December Windows XP sold around 650,000 copies through retail channels, as opposed to roughly 900,000 copies of Windows 98 sold in the first two months after it was launched, according to Howard Dyckovsky at research firm NPDTechworld. Windows XP tallied sales of

around 400,000 copies in October and 250,000 in November, he said. Hopefully, readers of *PC Advisor* and others have heeded our words about the bizarre pricing differences across retail channels, as featured in *Behind the news*, November 01.

But though the numbers look bad, Dyckovsky says they're not awful. "Given the market conditions, sales are pretty good," he said, adding that "[XP] will end up selling more than Windows 98 and 95 did, but it will take a while. Overall, it will clearly be the biggest selling operating system that Microsoft has."

## Oftel gets serious on over-inflated mobile-to-mobile tariffs

In September 2001, Telco watchdog Oftel announced it would refer mobile phone operators Orange, One2One, BT Cellnet and Vodafone to the Competition Commission over their refusal to cut the cost of mobile calls to rival networks.

In the same month, Oftel published its planned price caps – set at 12 percent on the RPI (retail price index) of mobile-to-mobile calls over four years – which could save customers as much as £800m.

Oftel's research found the price of a call from a fixed landline to a mobile cost 24p for three minutes, while the same length call between mobile networks worked out at up to 60p. Around 60 percent (39p) of this cost was made up of the termination charge.

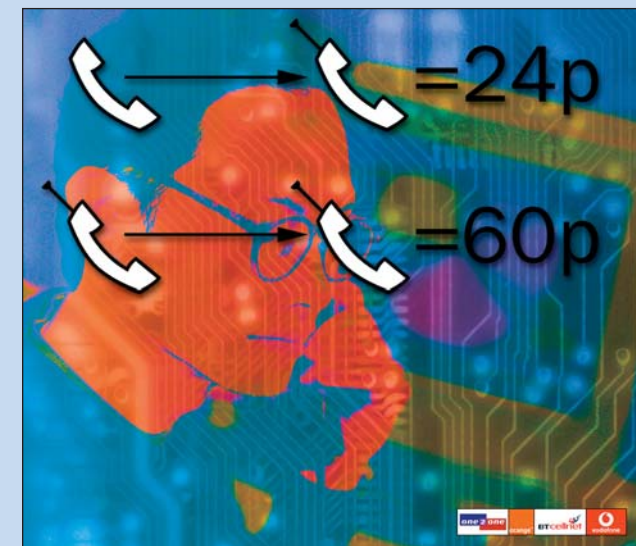
The report found termination charges were far in excess of the actual cost, but said there was little incentive for operators to cut these profitable charges.

Oftel's director general David Edmonds said customers still needed "protection from excessive pricing" and added that customers had "no choice" which network they used to make mobile-to-mobile calls.

But all four mobile operators argue that consumers are not using an alternative to their mobiles to avoid the higher mobile-to-mobile charges "sufficiently to place competitive pressure on call termination".

BT Cellnet stated plainly that consumers were aware of these charges and continued to use their phones anyway.

The Competition Commission will have six months to debate the pricing policies, with an option to extend discussion for a further six months. Operators could then face legal action if they refuse to comply with its decision.



## Daily news from www.pcadvisor.co.uk

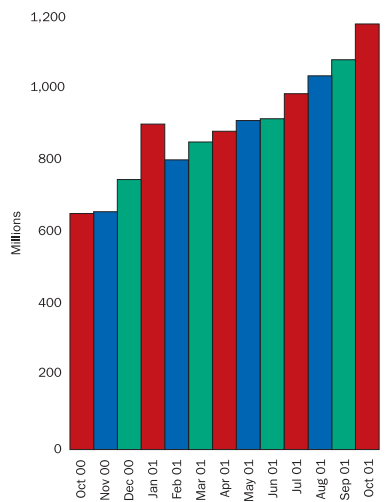
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## OUR LIVES IN NUMBERS: text messaging

Mobile Data Association figures show that UK text messaging rose steadily throughout 2001, with almost 1.2 billion sent in October. The Association suggested that the Christmas and new year periods could take texting to almost twice that level.

Source: Mobile Data Association



## Consumer groups launch internet privacy guide

Consumer privacy groups in the US have launched an online guide for protecting security and privacy. But for us Brits, there's no home-grown version.

Website, [www.consumerprivacyguide.org](http://www.consumerprivacyguide.org), provides tips on how to read and understand the privacy policies of online retailers. It also offers how-to guides for getting rid of cookies.

But as yet there are no UK sites specifically dedicated to privacy and internet security.

The Data Protection Commission confirmed it was concentrating its efforts on improving internet privacy and said a website may be a route to this.

The Consumers Association said it was not aware of any such site for UK consumers and, again, said it was something it is looking into.

"We have been concentrating on individual retailers, rather than a universal site," said the Consumers Association's online buying adviser Garreth Hayden. The Association's efforts so far have been to "push retailers to display their privacy and security policies in a prominent position on their sites".

The Consumers Association said security information for online shoppers was available on its site at [www.which.net](http://www.which.net).



While Which.net (left) offers some advice on internet security. The UK has no equivalent to the USA's comprehensive privacy guide (above)

## Intel launches 2.2GHz Pentium 4

At the beginning of January Intel launched its 2.2GHz Pentium 4 microprocessor. The 2.2GHz chip, Intel's fastest to date, made its debut appearance in Tokyo's Akihabara electronics district just before the new year.

The chip is the first processor based on the company's 0.13-micron Northwood core and features 512KB of L2 (level 2) cache, compared to current 0.18-micron Pentium 4 processors that offer only 256KB. The 0.13-micron manufacturing process allows Intel to pack components more tightly on to a chip. This can boost operation speeds and reduce costs, as well as lower heat and power consumption.

"[A] larger cache does provide an important performance benefit," said Nathan Brookwood, principal analyst with Insight 64, a research firm based in California. "[The performance growth] is more than the increase you would get going from 2GHz to 2.2GHz [with the smaller cache]."

In addition, Pentium 4 chips using the Northwood core will run at 1.5 volts, compared to 1.75 volts for current Pentium 4 processors. Lowering the voltage lets the chips run at lower temperatures, which will become more important as Intel further increases the clock frequency of future Pentium 4 chips.



## OUR LIVES IN NUMBERS: online dictionaries

For a second month, serendipity leads the top 20 words searched in online dictionaries.

Source: Cambridge Dictionaries Online



## Ginger: C5 or cat's pyjamas?

After nearly a year of speculation and anticipation, December saw inventor Dean Kamen finally unveil the product formerly known as Ginger – a personal transportation device called the Segway Human Transporter.

Segway says it should start selling the machine late this year. Most closely resembling a scooter, the Human Transporter is a two-wheeled personal transportation system that is controlled by minimal body movements, according to the company.

This is allegedly achieved through 'dynamic stabilisation' – gyroscopes and tilt sensors that monitor the rider's centre of gravity around 100 times a second.

Segway will manufacture three initial models of the device – the i-series, the e-series and the p-series. The i-series will be designed for range and speed across different terrains, the e-series will be used in business applications such as warehousing and will be able to haul up to 35 kilograms (75 pounds) beyond the rider's body weight, and the p-series will be targeted at densely populated areas, Segway said.

But at over £2,000 plus VAT for the basic model, according to a report by *Time* magazine, this does have the smell of the C5 about it. Contributors to the *PC Advisor* forums almost unanimously agree.

## European regulation of spam is can of worms

European telecommunication ministers have finally agreed that unsolicited email and text messages – or spam – should be prohibited under a new data protection law. They have also agreed to allow leeway for law enforcement agencies to access logs of email and telephone traffic.

The decision put the ministers directly at odds with the position of the European Parliament, which in November 2001 voted in favour of tighter controls on law enforcement access to these logs and against any ban on spam.

The ministers also settled on a legal basis for the use of cookies, determining that websites should give consumers prior notice that they are downloading cookies to their PCs, and banning the use of spy cookies, which extract information from a PC and send it back to the site responsible for installing them.

Belgium's telecommunication minister Rik Daems, who chaired yesterday's meeting, would not reveal the exact wording of the agreement, but warned that the negotiations on the issue with the European Parliament will be "tough".



### Jobs for the toys

Apple has paid chief executive Steve Jobs an annual salary of \$1 for the second year running, throwing in the 'special executive bonus' of an aeroplane, which has so far cost the firm more than £62m.

The plane was originally a bonus for 2000, but was moved to the 2001 fiscal year because it was not formally given to Jobs until that year. Last year, Jobs received options for 20 million Apple shares on top of his \$1 salary.

### Surfing girls

Most women love to shop, and more than ever now they're doing it online. According to the latest research from Nielsen/NetRatings, 43.1 percent of internet use in November was made up of women hitting the web to shop.

Eight of the 10 most popular sites visited were e-commerce destinations, including Wellbeing.com, which is high street store Boots' site, the catalogue site Littlewoods.com and the Sainsbury's online supermarket.

### AMD fails to win sealed documents

A US court has denied a motion filed by processor manufacturer AMD, in which the firm sought to make sealed documents from a 1997 lawsuit against rival Intel available for an EC inquiry into alleged anticompetitive behaviour by the company.

AMD believes expert testimony from the suit, filed by Intergraph, relates to its own allegations of anticompetitive practices by Intel. The company has not decided whether it will appeal.

### Intel withdraws from chip battle

Intel and Via Technologies' long-term dispute over the ownership of chip technologies has finally been settled after Intel withdrew its claims.

In July of last year, Intel claimed Via Technologies' K7-compatible chipsets had violated four of its patents. Via denied that Intel held the disputed patents and filed counterclaims over the wilful destruction of its technology.

As Intel has withdrawn its claims, so Via has dropped its own countersuits.

### Things are looking up

It looks like Bill Gates' Comdex enthusiasm may not have been as false as it seemed. For the second month, semiconductor sales are strong, a key indicator of the IT industry's health.

Spurred on by sales of PCs and other consumer goods, including automotive products and wireless devices, the global semiconductor industry continues to show signs of recovery, said the SIA (Semiconductor Industry Association).

### MoD says no to IT projects

The Ministry of Defence is pulling the plug on expensive IT projects to redirect funds into the essentials of the Afghan war – guns, bombs and basic logistics. This is a cruel blow to computer companies, already hit by lower civilian spending, that were hoping for a war bonus from bumper defence spending. But industry observers said that computer companies would do well to concentrate their efforts on the high street, where spending is buoyant.

### More Jungle bungles

Online retailer Jungle.com has once again postponed the relaunch date of its shopping site following a lengthy struggle to get its state-of-the-art Retek information management system back on its feet.

Malfunctions in the system recently led to the cancellation of 2,500 orders and the loss of around £250,000 worth of business.

Jungle.com is now pencilling in 29 January for its latest revamp.

### All Airboard

Sony's given its Airboard personal IT television a new look, upgrading the screen, giving it more functions and vastly improving the base station. But the company is firmly distancing it from recent internet appliance failures.

The Airboard marries the functions of a television and internet tablet into a portable device that is designed to give access to TV, audio-visual devices or the internet from anywhere within a 30-metre range of its base station.



## More time for Galileo

The EC will continue to seek financial backing for Europe's version of the GPS (global positioning system) from EU countries until March 2002, hoping to evade the possibility that the £1.6bn project might be scrubbed.

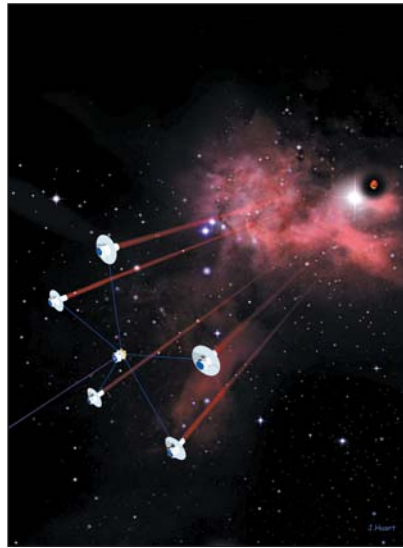
EC spokesman Gilles Gantelet said EU heads of state who met in Belgium during December endorsed the strategic importance of the satellite-based Galileo location system, but agreed to wait until March to obtain financing.

It had been feared that the project would remain grounded in more ways than one after a meeting in November, when the EC was unable to obtain the funding it needed from a majority of the transport ministers of EU member states. Galileo could still be cancelled if it doesn't receive the necessary funding by March 2002.

The EU is responsible for around half the funding for Galileo, with the ESA (European Space Agency) picking up the other half. The ESA had already approved \$466m for its share of Galileo, leaving the EC to catch up with its own tranche.



Besides ensuring access to navigation signals free from potential interference or manipulation in time of war, Galileo promises improved accuracy for all users of satellite navigation worldwide. This is through the introduction of receivers capable of picking up signals from both the US GPS constellation and the Galileo satellites.



## Toshiba claims battery breakthrough

Toshiba's battery division has developed a nickel and zinc-based disposable battery which has proved in tests to last five times as long as the current standard alkaline batteries.



The battery – which Toshiba stresses is disposable not rechargeable – will be used in mobile devices, particularly digital still cameras. The company will roll out the AA-size GigaEnergy product in March, according to spokesman Yutaka Nomura, but it may cost as much as double alkaline cells, according to the firm.

The Toshiba GigaEnergy uses nickel oxyhydroxide for the positive electrode, a compound often used in rechargeable batteries. By making the battery disposable, it's more suitable for mobile devices, Nomura said.

Used in a digital still camera, the GigaEnergy lasts five times longer than alkaline batteries, and it also works better in a low-temperature environment where alkaline battery performance declines, he said.

## Quantum crypto is just around the corner

Researchers at Toshiba have developed an LED (light emitting diode) capable of firing a single photon at a time, which could make sending encrypted messages truly secure and bring quantum computing closer to reality.

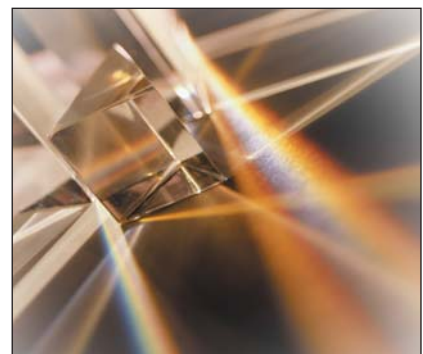
Researchers believe the diode could be used for quantum cryptography, a secure form of optical communication. Quantum cryptography is far safer than normal encryption as its security is based on the laws of quantum physics.

Experimental systems of quantum cryptography have so far remained less than fail-safe because they emit more

than one photon (particle of light) at a time. This essentially allows a hacker to break certain sections of a code without being detected.

Photons can be polarised to different states; this polarisation can be used to define binary positions. A basic tenet of quantum physics on which the system works means that if those photons are intercepted, the hacker will have no idea how to read them.

It also means that any interception will alter the message and the recipient will know immediately that a security breach has been attempted.



But using single photons is highly inefficient, because the photons tend to escape from the optical fibres. Researchers currently envisage using the new technology only to form shared cryptographic keys.