

## WIMAX DEBATE

Airspan strikes back at customer claims that WiMAX is a failure

## INDONESIA

Hutchison awards expansion, turnkey deals to NSN

## GREEN TELECOM

The new edition of our sustainable telecoms supplement

# COMMSDAY

ASEAN CHINA EDITION

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## New TPE members change trans-Pacific capacity landscape

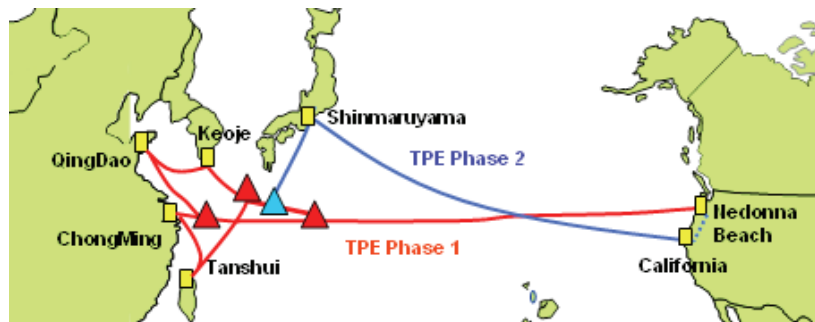
The Trans-Pacific Express Consortium building an 18,000-kilometre cable between the US and Asia has signed two new members: AT&T and NTT Communications.

The development changes the competitive landscape of trans-Pacific capacity market through new links and potential network configurations.

The two new consortium members join Verizon Business, China Telecom, China Netcom, China Unicom, Chunghwa Telecom and Korea Telecom in TPE.

According to TPE, AT&T and NTT Communications Corporation signed construction and maintenance agreements on February 28, 2008, and March 14, 2008, respectively, to participate in the TPE consortium.

While TPE's original topology was as a linear system connecting Nedonna Beach, Oregon in the US, and ChongMing, China with further landing points in QingDao, China; Keoje, South Korea, and Tanshui, Taiwan, the addition of NTT will now see the cable land in Japan.



“The segment to be added as the result of NTT joining the TPE Consortium this month is the additional link to Japan, which is expected to be completed in March 2009, and the Japan-to-U.S. link, which is expected to be completed in early 2010 (subject to regulatory approvals),” TPE said.

The new links do not result in a full ring configuration for the TPE system (see map), but does add access to the Japanese market as well as a second trans-Pacific route for the Consortium between Shinmaruyama, Japan and California when it is eventually complete.

Meanwhile, AT&T's participation now gives the US operator access to two out of three major trans-Pacific cables being built. AT&T has committed to the Asia-America Gateway system linking South Asia to the US. As a result, AT&T will now become the only operator with membership access to cables line the US with north and south Asia.

**REACTION:** “At the start it seemed that AT&T in AAG and Verizon in TPE were in opposing camps ready to slug it out,” said John Hibbard, CEO of Hibbard Consulting. “However for a number of reasons, the move of AT&T in particular makes a lot of sense. Both AAG and TPE are single sheath cables and hence having capacity in the other affords diversity.”

Hibbard adds that “One might foresee a reciprocal move by Verizon into AAG. The AT&T move (and also NTT's) may be a recognition of the limitations of the Japan-US cable. And from a commercial viewpoint, if there was to be a price war between the two cables, then AT&T would be ideally placed to pick up the best deal. I think it is all part of the growing trend to pragmatic mesh

networking. Might I say that it probably equips AT&T well to match what might evolve from the Unity cable developments particularly now that Unity South has been hinted at.”

The current trans-Pacific capacity market is dominated by two operators, Tata Communications, who owns the TGN-Pacific, and Pacific Crossing, who recently upgraded capacity on its PC-1 cable to just over 1 Tbps. Both systems connect Japan with the US. Other legacy systems such as the Japan-US and China-US are reportedly full and cannot be upgraded.

TPE is expected to enter the market this July with the completion of the US-China segment, according to Verizon, who said the existing consortium members worked hard in the past 15 months to expedite service launch on the link to launch before the Beijing 2008 Olympics in August. TPE is expected to come online with 1.28Tbps of initial capacity, and is upgradeable to 5.12Tbps.

Tony Chan

## **WiMAX industry strikes back at technology “failure” claims**

Key WiMAX advocates have struck back at claims that the technology is a failure. The claims emerged Wednesday afternoon when CEO of Australian ISP Buzz Broadband Garth Freeman told a Bangkok WiMAX conference that the technology was a “miserable failure” that performed at unacceptably poor levels on indoors and non-line of sight installations and low latency-reliant applications. The Buzz claims have gained extensive publicity in the United States, even being reported by the New York Times’ website late yesterday.

But Buzz’s key technology vendor Airspan rebuked Freeman’s claims yesterday afternoon in an open letter posted on websites.

Airspan says Buzz’s focus on cost-cutting had effectively killed off the network’s chances of functioning properly. Airspan’s chief marketing officer Declan Byrne publicly claimed Buzz had refused help from the vendor to improve its network, consistently choosing low cost equipment unsuited to the company’s requirements which affected range and service quality.

“At Airspan, we pride ourselves on our customer service and excellent products. In the case of [Buzz CEO Garth] Freeman’s company Buzz Broadband, we exhausted all avenues to help this customer re-engineer their core network and resolve these service issues,” said Byrne yesterday. “In the end, with Mr. Freeman rejecting help from the outside, the technical and financial resources of Buzz Broadband were not sufficient to deploy a functioning network to the satisfaction of its customers. We regret the distress caused by Buzz’ poor network architecture decisions to the customers in need of Broadband Internet access and VoIP services.”

Australian wireless operators Internode and Unwired have also since stepped in to rebuke Freeman, saying the technology works.

**A BUSINESS FAILURE?** Unwired CEO David Spence yesterday told CommsDay that “the story of Buzz is the story of the failure of a small business, not a technology.”

“The other side of that story is the global momentum behind the wireless broadband speed and especially capacity that WiMAX offers and 3G-based solutions do not. We know it works, and there are now over 300 networks being built based on the WiMAX standard around the world to prove it.”

In his response to Buzz, Airspan’s Byrne claimed Freeman knew lower-cost base stations would offer less reach than their more expensive counterparts. “With regard to range, although Airspan offers both micro-cell and macro-cell base station solutions, Buzz Broadband opted to go with the less-expensive micro-cell base stations in order to reduce cost. This was a well understood tradeoff of cost vs. range.”

Luke Coleman

## **WiMAX Forum says platform complements 3G networks**

While WiMAX’s proponents and detractors trade salvos over alleged performance issues, a recent white paper issued by the international WiMAX Forum has positioned the technology as complementary to existing 2G and 3G networks, better able to cope with the increasingly high demands of mobile data traffic.

The 522-member Forum (composed of WiMAX operators, component and equipment companies) suggested in the white paper that 2.5G and 3G networks, while yielding efficient voice offerings and excellent coverage, would encounter capacity constraints on mobile data, projected to grow by an order of magnitude in the next seven years. The paper discussed the application of WiMAX as a “data overlay” on 2G and 3G networks, deployed “for more data intensive applications.”

The Forum noted that WiMAX already employs the OFDM and MIMO technologies, a pairing which it says is “highly scalable... systems based upon it are best positioned to satisfy the headroom requirements for mobile broadband data over the next decade.” The white paper predicted 50% data rate gains for MIMO-enabled WiMAX systems over current SISO implementations in 2008, and said that 3GPP’s Long Term Evolution standard – currently in development – is based on the OFDM-MIMO combination, with IEE 802.16 and 3GPP2 standards bodies also adopting the technologies.

Although an OFDM-MIMO data overlay network would require the deployment of new base station line cards and network upgrades, the white paper mentioned the possibility for mobile operators to co-locate base station equipment in existing 2G and 3G cell sites, citing a 70% cell site re-use rate in deployments to date. The Forum emphasised collaboration with 2G and 3G operators, saying that “the WiMAX community has and will continue to work closely within 3GPP to optimise interworking between WiMax and 2G/3G networks,” and forecasting the availability of multi-mode devices capable of supporting multiple connection types.

Petroc Wilton

## **NSN expands Hutchison coverage in Java and Sumatra**

Nokia Siemens Networks said it has signed a network expansion deal with Hutchison CP Telecommunications Indonesia to extend the operator’s GSM/WCDMA network coverage in the islands of Java and Sumatra with 2,800 base stations and rolling out GSM core networks in Kalimantan and Sulawesi.

Financial terms of this latest contract were not disclosed. The latest deal was said to augment HCPT’s first network contract with Siemens Indonesia in 2005.

Nokia Siemens Networks is commissioned to broaden HCPT’s network coverage in both islands, including implementation of Release 4 mobile softswitch and Media Gateways. On the services front, NSN will also continue with its project management role and provide network management services and will install the core networks for HCPT in Kalimantan and Sulawesi.

Rajiv Sawhney, president director at HCPT, pointed out that this expansion supports the momentum his company has built up with the success of company’s service in addressing the needs of customers.

Hong Kong’s Hutchison controls 60 percent of HCPT while Thailand's Charoen Pokphand holds the remaining 40 percent. Nokia Siemens Networks said the deliveries would start next month and it would continue to work with HCPT on the carrier's major expansion plans over the next three years across all the islands.

Pamela Perez

## **Sri Lanka Telecom says no NTT stake sale**

Sri Lanka Telecom’s chairperson Leisha Chandrasena denied speculation of a 35 percent stake sale held by Nippon Telegraph and Telephone of Japan to Maxis of Malaysia, adding that the firm has neither been informed of a date for the sale.

“We have not been informed yet of an imminent sale of these shares and even if so, that is a private transaction between those two parties which we are not involved and which we are not privy to,” Chandrasena told the Daily News Business.

New chairperson Chandrasena, who represents the interests of the government of Sri Lanka which is a 49.5 percent shareholder of the telco, said NTT had not given notice of a sale or the replacement of any Japanese directors.

Dismissing earlier news reports of a crucial board meeting of the SLT Board of Directors to take important decisions on the restructuring process of SLT, Chandrasena said there was no emergency board meeting held but what was there was a routine board meeting which was agreed a month ago

to deliberate on financial and operational aspects of the company, she said.

According to sources, who declined to be named, the restructuring was part of a process to make SLT a global player.

Chandrasena also said that there is no truth regarding the resignation of SLT CEO Shoji Takahashi who was very much there at the Board Meeting, she said.

Chief Executive Officer of Sri Lanka Telecom Shoji Takashi has been reported to have vacated his position in accordance with the management contract between the SLT and NTT which currently owns 35.2 percent of SLT shares, informed sources said.

Under a shareholders agreement with the government, NTT, which owns 35.2 percent of the company, has the right to appoint a chief financial officer. If NTT sells more than 25 percent of its stake, the shareholder agreement becomes void.

She explained that the position on the sale of the NTT shares was that the Stay Order issued by Court was lifted.

Last week, the Supreme Court cleared the way for NTT to sell part of its stake to Global Telecommunications Holdings of Malaysia, which owns Malaysian telecom giant Maxis, but said the shareholder's agreement between the new investor and the Treasury, the major stakeholder, must be public and transparent.

She also pointed that the SLT would be making an announcement to the Colombo Stock Exchange and the public through a media release if and when such a transaction takes place.

Pamela Perez

## **Huawei Indonesia doubles local talents**

Huawei Technologies is said to be set to push up its Indonesian employee numbers to 2,000 this year, doubling its existing workforce of over 1,000 employees of whom 85% are local in year 2007. "Our business in Indonesia is growing so fast within the past few years and we would like to hire more talented local people to grow together with Huawei to serve Indonesia in telecommunication sector," said Ma Yue, President Director of Huawei Tech Investment.

Its wholly-owned unit in Indonesia, PT Huawei Tech Investment, will increase headcount as it becomes "one of the leading communications suppliers for Indonesia major operators to serve and improve the telecommunication needs of Indonesia people."

Huawei Tech Investment had started its business in Indonesia in year 2000 and is currently realizing the potential of providing cost effective and value added telecom solutions to support Indonesia's telecommunication infrastructure in areas like GSM, UMTS, CDMA, transmission and data, access networks, core networks, VAS and terminals.

Moreover, due to rapid business expansion, PT Huawei Tech Investment is planning to establish a local R&D centre in Jakarta, service centers in every region in Indonesia and regional spare parts centers in Sumatera, Kalimantan and Sulawesi.

Pamela Perez

## **Asia-Pac IT services market to reach \$55.9bn by 2011, says research**

The IT services market in the Asia Pacific region is set to lift off reaching \$US55.9bn by 2011, according to Springboard Research's latest report.

The current IT Services market in the Asia Pacific (excluding Japan), which was valued at \$US 37.5bn in 2007 is aligned to grow to \$US 5.9bn by 2011, according to analysts predictions at Springboard Research. The report has identified that India will remain the fastest growing IT Services country in the region, while greater China will represent the largest regional opportunity within the next three years.

"The Asia Pacific IT services market is arguably the global leader in terms of growth, supplemented with a mix of mature and emerging markets," said Phil Hassey, Vice President – Services Research at Springboard Research.

He said that the markets of interest are not just the usual top four suspects of China, India, Australia and Korea but rather emerging ones like Indonesia and Vietnam, which will register significant growth going forward.

“For India and China, local capabilities, offerings and presence is just the start of a list of essential requirements for success. On the other hand, existing relationships, marquee clients and strong partnerships can provide capabilities for expansion in markets such as Hong Kong and New Zealand with relatively limited opportunities,” said Hassey.

Springboard has gauged each of the countries on a Market Attractiveness Index to rank individual services markets based on growth opportunities. The ranking has placed China at the top of that list, followed by India, Australia, Korea, Indonesia, Vietnam, Malaysia, the Rest of ASEAN, Singapore and the Philippines respectively.

The report has also found that Application Hosting will register the fastest growth over the next three years, though Enterprise Application Integration will form the largest market component.

Pamela Perez

## **Google submits white space spectrum proposal**

Google has submitted a white space spectrum proposal to the US Federal Communications Commission, urging regulators to allow wireless players to take advantage of unlicensed spectrum sandwiched between airwaves used for television broadcasts and wireless microphones. Operators have been keen to jump into the space to avoid a spectrum squeeze but incumbent users fear interference. Google said its refined proposal would “eliminate any remaining legitimate concerns about the merits of using the white space for unlicensed personal/portable devices.”

Google said white space could be used for “Wi-Fi on steroids” offering data speeds in the billions of bits per second category. “The airwaves can provide huge economic and social gains if used more efficiently,” it said in a statement, acknowledging white space access was likely to boost uptake of its own free services. Google suggested using “spectrum-sensing technologies” to avoid interference and proposed reserving channels 36 through 38 as a safe harbor for medical and scientific devices and microphones.

Federal officials are currently mulling a split license that would allocate one swathe of airwaves for fixed commercial operations and a second spectrum spread for personal low-power consumer devices. Further details of the Google proposal were not immediately available, but the search giant is known to have thrown in with ostensible rival Microsoft to persuade the US government to open up the airwaves for Wi-Fi use. The pair is currently involved in a white space consortium that also includes Dell, Intel, HP and Philips Electronics.

**MARKET SHARE DROP:** Google saw its global market share dip slightly to 62.8% last month, according to new figures from comScore. The figure indicates a fall of less than one third of a point even as the site's US searches plunged by more than 280 million to 5.86 billion in February. But the company grew its US share to 59.2% in the period, suggesting the sector could be approaching maturity. Analysts disagree whether this is the case, but a mature search market would place growing emphasis on the ability of Google and others to translate searches into ad views.

## **Qualcomm, USAID combine on Vietnam center**

Qualcomm and USAID have partnered to deploy wireless broadband services for a Vietnamese Community Technology and Learning Center.

Qualcomm has agreed to build a CDMA000 1xEV-DO network for the Dong Anh facility under its Wireless Reach program, which aims to ultimately provide 3G connectivity and basic computer training throughout rural Vietnam via 64 provincial tech centers. An estimated 24,000 students have already passed through the program's existing centers.

“Wireless Reach is committed to actively support the Vietnamese government in improving Internet penetration rates and the overall educational environment,” said Qualcomm business development vice president Ming Li, adding the program “cultivates new learning opportunities in Vietnam through the provision of 3G Internet access and Microsoft materials that have been translated into Vietnamese with corresponding training. The CTLCs offer an avenue for local people to get trained on practical applications and skills that hopefully can translate into jobs for them.”

**INJUNCTION UPHELD:** A US appeals court has upheld an injunction barring Qualcomm from selling WCDMA chips previously found to infringe on three Broadcom patents. The CDMA developer had hoped to persuade the court to allow it to continue selling the chips until its own appeal

was heard. The new decision requires Qualcomm to pay mandatory royalties to Broadcom through 31 January and prohibits the sale of infringing chipsets after that date. Qualcomm said it expects to have an alternative chip solution on the market by the end of the quarter.

## **Icahn sues Motorola for information**

Upstart investor Carl Icahn has sued Motorola in hopes of obtaining inside information about its bleeding mobile devices business. Icahn is currently waging a proxy battle to oust unfriendly directors and force the handset vendor to cut the loss-making handset unit loose.

In a letter to Motorola shareholders, Icahn said the Delaware suit would enable him "to investigate whether and to what extent the board of directors of Motorola failed in their duties as directors" as well as reveal whether the board or senior management abused their access to company aircraft and other resources. "We want to ascertain what the board could have done in the exercise of its fiduciary duty to assure Motorola stockholders that Motorola's statements and predictions were not incorrect."

## **Internode set to launch Japanese POP**

Australian carrier Internode is set to launch a new international point of presence in Japan, and is also considering extending its presence in New Zealand. CommsDay yesterday spoke to Internode managing director Simon Hackett, who said the move will give Internode a range of new options around international capacity and boost international business opportunities.

The Japanese presence will be a 'breakout' of existing capacity purchases from Australia via Japan to the USA on the Australia Japan Cable system, delivering 622 Megabits per second. "We've produced a situation where we go past Tokyo but we don't actually stop there, so there's enormous logic in actually putting the breakout in," Hackett said yesterday.

"It will be a fully connected part of our network... you get much better latency to Asia... the only way to get to Asia for us is to touch the US first – we're actually fixing an inadvertent side effect of building our own network," he said. Currently Internode packets to Japan would travel across the Pacific four times, some 40,000kms. "Geostationary satellite's 36,000kms," said Hackett.

As well as much higher speeds, Hackett says the Japanese PoP will also mean higher availability and will give the company some "quite creative" international options in the case of outages in the US. Hackett says the Japanese "beachhead" is set to be up and running within a month. While the move will increase costs for the company, Hackett says with the extra business expected from Asia will make the investment more than worthwhile. "It will ultimately converge to not dramatically more expensive," he said.

Internode is currently investigating a similar breakout in New Zealand. "For largely similar reasons – we go past it on Southern Cross, so why not stop? That one we haven't committed to yet but it's a logical thing for us to do." While saying it was not a move to become a New Zealand ISP, Hackett said it was about becoming "well interconnected into our nearest neighbour."

Luke Coleman

## **AOL SELLS BANGALORE CALL CENTER>**

AOL has agreed to sell its Bangalore call center to Essar in a \$100 million deal, according to the Times of India. The paper said the Indian firm beat out rival Wipro and several others with a cash deal for the customer support operation, which employs 1,200 local workers. But AOL regional call center head Rajiv Ahuja disputed the report.

## **YAHOO PARTNERS WITH INDIAN LABS**

Yahoo has partnered with Indian firm Computational Research Laboratories to research cloud computing solutions. Such technology is expected to prove a boon for the portal and its peers as they race to offer free Web-based services and shared software. The alliance finds the Tata unit offering up one of the world's top five supercomputers to aid in research. Financial terms were not disclosed.

> **Nokia wants to rid cell sites of diesel**

> **Freeware aims to cut PC power consumption**

MARCH 25 2008: Green Telecom is a new fortnightly supplement with all CommsDay regional editions that highlights the move towards sustainable use of telecoms products and services. Editor: Tony Chan at [tony@commsdaymail.com](mailto:tony@commsdaymail.com)  
More information can be found at <http://www.greentelecomlive.com>

## China Mobile makes environmental pledge in first CSR report

The world's biggest mobile operator China Mobile released its first corporate social responsibility report this month, outlining its commitments to help sustainable economic and social growth in China, as well as pledging to reduce its impact on the environment through energy efficiency and waste management programs.

Commenting in the report, China Mobile's president, Wang Jianzhou, said: "As we have grown, our economic, social and environmental impact has also deepened. For this reason, in line with our core value, 'Responsibility Makers Perfection,' we seek to 'grow together harmoniously' with industry, society and nature."

Together with wide ranging commitments on the corporate level to extend network and service coverage to rural areas, step up disaster relief efforts and help low-income users get connected, China Mobile also laid out its commitments towards the environment.

In 2007, the company introduced its "Green Action Plan," which focuses on energy conservation and reducing emissions across its business practices. The objective of the Plan is to, by 2010, increase energy efficiency, as measured on a per-unit of telecommunications traffic basis, by 40% compared to 2005 levels, or equal to 8 billion kWh of electricity, the company said.

The result will save over 6.8 million tonnes of carbon dioxide, the equivalent emissions of 1.7 million vehicles per year, or about 2.7 million tonnes of standard coal energy.

The Plan consists of 7 major programs, including: the standardization of buildings, equipments and site design to optimise land, material and energy usage; upgrading existing 2G infrastructure to more efficient 3G and IP; the establishment of green packaging standards; working with equipment providers to improve energy efficient; energy saving initiatives for auxiliary equipment; promote the use of electronic services by its suppliers; and promoting better waste management and the use of renewable energy. "In 2007, we began to systematically collect CSR performance metrics – which included environmental performance metrics – across our entire organization," China Mobile's report said. "This was a new endeavour for our company, in the future this data will allow us to target our efforts at monitoring and improving our performance."



### Renewable energy to replace diesel for remote cell sites - Nokia

Nokia Siemens Networks (NSN) says that operators installing cell sites in remote locations will select renewable energy as their first choice by as early as 2011.

Pointing to the requirements of operators in fast growing emerging markets where electricity grids are not always available, NSN says that renewable energy such as wind and solar is now mature and will be increasingly deployed as solutions for remote sites. Today, these sites are typically powered by diesel generators, which require regular refuelling and skilled maintenance and are susceptible to theft.

Most importantly, the cost of diesel is high and is expected to rise in the future, Nokia adds.

"A sustainable alternative to power remote base station sites is to use renewable energy sources such as wind and solar power. By 2011, our first choice to power these sites will be renewable energy", said Anne Larilahti, head of environmentally sustainable business, Nokia Siemens Networks, in a speech given in the Green Forum industry event in Beijing last week.

NSN is now offering operators what it calls autonomous sites, which can be configured with solar and wind systems to best suit the environmental conditions at the site.

“Solar and wind technologies are mature, they have a long life time, their operational cost is almost nonexistent and the capital expenditure required is decreasing. The lowering investment cost and the increasing prices of fossil fuels work together to improve the business case of utilizing renewable energy sources” said Larilahti.

“This is good news for telecom operators in China that are looking for ways to manage their long term costs. As China’s government moves ahead with plans to increase its renewable energy supply and focus on energy reduction technologies, Nokia Siemens Networks’ wind and solar solutions will help to power the increasing demands in the telecommunications industry. Not only will this result in cost and energy savings for operators, but it will contribute to a greener environment for all,” said David Ho, chairman of Nokia Siemens Networks, Greater China region.

Both Ericsson and Motorola offer renewable energy-powered cell site solutions.

Nokia Siemens Networks through its parent companies has been working on alternative energy sources since 1981. Currently NSN base station sites running on renewable energy sources have been installed to approximately 30 countries.

## **ITU to accelerate work on ICT standards inside cars**

The International Telecommunications Union is looking to take a more active role in the establishment of standards that bridge the telecommunications and automotive industries. Early in March, the ITU held its Fully Networked Car event during the Geneva Motor Show to promote idea of taking advantage of information and communications technology to reduce the impact of cars on the environment.

The event, attended by Max Mosley, the head of Formula One’s governing body, the FIA and ITU Secretary General, Dr Hamadoun I. Toure, attracted more than 200 industry professionals.

One of the key themes of the event focused on leveraging technologies developed by F1 racing to set new industry standards that reduce the carbon emission from vehicle use.

Mosley points to the fact that as many as 300 channels of information is set up between F1 race cars and the pit crew to ensure optimum performance. These technologies can be leveraged to improve the performance and efficiency of vehicles beyond the sport, he said.

One attendee, Michel Mayer, CEO of Freescale Semiconductor, a supplier of ICT solutions to F1 teams and a sponsor of the event, highlighted concerns at the proliferation of proprietary standards in the area and urged global standards bodies such as the ITU to take a lead. He said that it is critical that further development be standards-driven.

ITU said it will help to push this standards work and convergence between the ICT and automotive industries with initiatives such as its FITCAR (From/In/To Cars Communication) Focus Group, and the hosting of the Advisory Panel for Standards Cooperation on Telecommunications related to Motor Vehicles (ASPC TELEMOT). Also helping to step up this activity, Malcolm Johnson, ITU’s director of standards, announced that the Fully Networked Car event - already in its fourth year - will now become a regular fixture bringing together the two industries. ITU will also be organizing two ITU symposia on ICTs and Climate Change: in Kyoto, 15-16 April, hosted by the government of Japan; and in London, 17-18 June, hosted by BT.

Priorities identified for future standardization included: a common set of standards for the full range of nomadic devices; standards for software defined radios; standards to cope with the gap between the short lifecycle of mobile phones compared to the relatively long lifecycle of cars; and privacy, where there is a need for a common understanding about what data is reasonable to collect and retain.

Last month, Cisco Systems unveiled the Connected Bus concept as part of its Connected Urban Development initiative. The Connected Bus prototype, showcased in San Francisco, is a hybrid, low emissions vehicle connected to backend systems that update route and connection information for passengers together with onboard a Wi-Fi hotspot. The vehicle is also connected to maintenance systems to ensure optimum performance.

## **Microsoft and Yello develop online energy meter**

German nuclear power utility, Yello Strom, and Microsoft Germany have developed the Yello Sparzahler, an online meter that lets users know exactly how they are using energy in their homes. The meter provides second-to-second usage data from appliances such as the refrigerator, stove, stereo system, and the water heater. The information is available to users from a browser or Vista gadget.



“This is a great example of how software can help us achieve new levels of energy efficiency in every aspect of our lives,” said Steve Ballmer, Microsoft CEO. “In the years ahead, software-based innovations that make homes more intelligent so we use only the energy we need for lighting, heating, and cooling is just one of the ways information technology will help us protect the environment by using natural resources more efficiently.”

The companies say the Yello Sparzähler has the potential to save consumers up to 10% of their energy consumption.

Martin Vesper, CEO of Yello: “We have developed a cost-efficient solution for consumers with the yellow Sparzähler enabling them to efficiently and intelligently use energy. Our Sparzähler makes the consumption of energy transparent and simplifies the saving of energy.”

**MICROSOFT BUILDING GREEN DATA CENTRES:** Ballmer also outlined the software-giant’s green initiatives, including the construction of two new data centres in Dublin, Ireland and Quincy, Washington State based on environmental factors. The Ireland site was selected for its year-round cool temperatures that reduce energy requirements for cooling while the Quincy site was selected for its proximity to a large hydro electric plant.

At the same time, Ballmer said Microsoft will also make public a set of data centre best practices for corporate users based on its own experience in optimising its data centres.

## **Oxford University developing freeware to save PC power**

Researchers at Oxford University aims to develop software that will optimise PC power consumption by making it easier for end-users and IT administrators to turn machines off when not in use. According to Oxford University, up to 50% of PCs in UK businesses and institutions are permanently turned on, while typical workplace computers are only used for about 40 hours a week.

“No-one sits at their computer for 168 hours a week,” said Daniel Curtis, researcher at Oxford University’s Environmental Change Institute. “When a computer is switched on, its power demand remains pretty much constant – regardless of whether its user is surfing the net, word-processing, or at home in bed. We are developing a system that will mean that computers only need to be switched on when actually in use. This may sound like a ‘no-brainer’ – just use the off-button – but the process is not always so simple. We aim to develop a means for managing computer power, which will inconvenience neither the end-user nor the staff manning the IT departments”

The university is currently conducting an 18-month pilot scheme in its own departments and colleges as a test bed for energy-saving, greener computing practices.

“With our package, we anticipate an average reduction in energy consumption of around 50 percent in the University’s stock of computers and a reduction in carbon emissions of up to 1,500 tonnes per year,” Curtis said. “An additional benefit will be cost savings – notwithstanding anticipated hikes in energy prices, we expect to save the University around £250,000 per year. We hope that, by making the software free and available to download, other UK educational institutions, and indeed any organisation that manages ICT systems, will take the opportunity to use it and significantly reduce carbon emissions.” The project will be launched on 19 March at a conference entitled “Towards Low Carbon ICT” at Oxford University’s Saïd Business School.

The pilot scheme is funded by JISC (Joint Information Systems Committee), a government agency set up to support the innovative use of ICT in research and education institutions.



## **Greenpeace survey finds few green electronic devices**

A new survey by Greenpeace to find ‘green’ electronic devices available on the market in 2007 yield overwhelmingly disappointing results, with only three out of 37 products tested scoring higher than then the half way mark of 5 out of 10 possible points, with the highest score from all the products maxing out at 5.3 by SonyEricsson’s T650i mobile phone.

The survey, released during a press conference at CeBit in Hannover, Germany, evaluated desktop PCs, notebooks, mobile phones, PDAs and game consoles on the market today on their use of hazardous chemical substances, energy efficiency, overall product lifecycle (recyclability and upgradeability) and other factors such as promotion of environmental friendliness and innovation.

“We contacted market leaders and invited them to submit, on a voluntary basis, their most environmentally-friendly products currently available,” Greenpeace said. “In addition, we placed ads in trade magazines and on websites encouraging other producers to participate. Each company could submit a maximum of three products in each of the product categories.”

The survey was based on voluntary participation by the companies and not all the companies Greenpeace invited participated. Acer, Apple, Microsoft, Nintendo and Sharp were invited but did not respond, while in the game console category, no submissions were received before the submission deadline.

Fourteen companies submitted their products, including Sony, SonyEricsson, Dell, HP, Toshiba, Lenovo, Fujitsu, Panasonic, Nokia, LG, Motorola, Samsung, Mio and RIM. SonyEricsson took the top spot in both the mobile and PDA categories. The company’s T650i beat out Nokia’s N95 to come out on top in the mobile phone category, but only with a barely passing grade of 5.30 while its P1i model top the PDA category with a 5.10 score. Sony’s Vaio TZ11 was the greenest notebook at 5.29 points, while Dell’s Optiplex 755 was the greenest desktop with a point of 4.71.

Despite the poor scores, Greenpeace does confirm that “the industry has already made advances along the path to green electronics.”

Positive signs by the industry include product designs that go beyond the basic regulatory requirements for the elimination of hazardous substances; commercial release of products that are free of hazardous chemicals; and an industry-wide focus on energy efficiency.

However, Greenpeace is critical of the industry’s weak efforts in managing product lifecycles, pointing out that simple task that can extend the life of a product, such as replacing a worn out battery is often prohibitively expensive and difficult.

**ONLINE GREEN METER FOR ELECTRONICS MAKERS:** Greenpeace also produces an online ‘Guide to Greener Electronics,’ a quarterly report that ranks top market leaders of the mobile phone, computer, TV and games console markets according to their policies and practices on toxic chemicals and takeback. In the latest edition published mid-March, Samsung and Toshiba share top spot with 7.7 out of 10, closely followed by Nokia, Sony, Dell and Lenovo all on 7.3. Nintendo ranks the lowest with a score of 0.3 due to a lack of public policy on toxic elimination and recycling. In the latest guide, 14 out of 18 companies scored 5 and more in the scale of 10 with six companies scoring 7.3 or more.



*Last but not least...*

**HP, DHL OFFER CARBON OFFSET PROGRAMS FOR CUSTOMERS:** HP Australia announced a new program that will allow customers of its LaserJet printers a way to offset carbon emissions produced over the lifetime of the printer. The HP Carbon Offset Program will be funded by HP at no cost to the customers. As part of the program, HP will direct proceeds to accredited global warming programs, including non-profit organizations and long term renewable energy projects. At the same time, DHL has introduced its GOGREEN EXPRESS services, which allows its customers to pay a 3% ‘green premium’ on top of standard charges. The funds from DHL’s program will be invested into environmentally friendly projects such as fuel vehicle technology, solar panels and reforestation. Customers will receive certification from DHL annually detailing the total amount of carbon offsets that was achieved on their behalf.

**DELL JOINS CLIMATE GROUP:** Computer maker Dell has joined the Climate Group, an independent, non-profit organisation dedicated to advancing business and government leadership on climate change. Dell is the first computer company to join the group. Among initiatives by Dell to combat climate change are pledges to reduce overall carbon intensity by an additional 15% by 2012, and to achieve carbon neutrality for all Dell facilities, manufacturing operations and business air travel beginning in 2008. Dell is the first IT company to join the Carbon Disclosure Project’s Supply Chain Leadership Collaboration to help its suppliers with emissions reporting, which Dell requires.