

# ExchangeAsia

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## India

### **NTT DoCoMo to pay \$US2.7b for 26 percent of Tata Teleservices** ***NTT DoCoMo is to acquire 26 percent of Tata Teleservices for approximately*** ***rp130.7 billion (\$US2.7b).***

Separately NTT DoCoMo intends to acquire 20 percent of Tata Teleservices (Maharashtra) Limited (TTML), a Tata telecommunications company, through a joint tender offer with Tata Son, the parent company of Tata Teleservices.

As a result of the capital alliance, the partners expect to expand mobile communication operations in the fast-growing Indian mobile market, aiming to increase operating revenue and achieve steady business growth.

TTSL, based in Mumbai, operates cellular networks serving almost all of India, and a large number of retail stores and customer-service outlets. TTSL has recently increased its share of the fast-growing Indian mobile market, and it is rapidly expanding its subscriber base, which currently exceeds 30 million (including TTML subscribers).

According to the Indian telecoms watchdog, the TRAI, India added just over 100 million mobile users in the past year, taking total subscribers to 296.08 million at the end of July 2008.

According to UK based mobile consultancy, BWCS, Tata Teleservices, which has yet to turn a profit, is the fourth largest mobile operator in India with 27.33 million customers on its CDMA network - putting it behind Bharti Airtel with 72.07 million customers (at end of July 2008), Vodafone Essar with 50.95 million and Reliance Communications with 52.54 million subscribers.

Tata Teleservices is planning to launch a new GSM network in the near future. Earlier this year, Tata Teleservices signed a deal with Virgin Mobile to jointly launch a new mobile phone service in India under the Virgin brand and targeting people between 15 and 30 years old. Virgin will take a share of the revenue in return for Tata using its brand name.

BWCS says that NTT DoCoMo's Indian move is part of a wider overseas expansion strategy aimed at achieving 10 percent of its sales from foreign ventures in a decade. In June, the company paid \$US350 million for a 30 percent stake in Bangladesh's third-largest mobile operator, Aktel, and in September invested \$US10 million to acquire an 11.5 percent stake in Blue Ocean Wireless, an Irish company providing GSM services to the merchant maritime sector.

Last month NTT DoCoMo unveiled a new strategic 'action plan' which included plans to expand its revenue streams from international business and to "achieve sustained growth by strengthening its international service offerings and pursuing investments and alliances mainly in the Asia-Pacific region," (ExA 16-42, p3).

### **Bharti Airtel expands call centre deal with Nortel**

***Bharti Airtel has extended its contract with Nortel for the provision of contact centre systems, announced in March 2006.***

Bharti Airtel is using Nortel technology to provide interactive voice and video response capabilities, providing a 24x7 'virtual storefront' where customers can complete routine transactions and subscribe to new services through an auto attendant that interacts naturally in English, Hindi and four other regional languages.

Nortel claims that more than 70 percent of Bharti Airtel customer requests are handled through this virtual storefront, resulting in greater availability, flexibility and responsiveness to subscribers.

According to Nortel, "Bharti Airtel benefits from unique 'per call' pricing that ties costs to customer growth and the level of service Nortel delivers – in effect, pay for performance. The more calls Nortel's service handles quickly and professionally, the more satisfied Bharti Airtel subscribers become and the more new subscribers are attracted."

Nortel claims that it and Bharti Airtel were recognised for their "unique and mutually beneficial relationship" with a 2007 Forbes Outsourcing Excellence Award for 'Best First Steps' in outsourcing practices.

Nortel also provides Bharti Airtel with network design, planning, implementation, integration, support and maintenance from the Nortel Global Services portfolio, delivered from Nortel's Network operations centre in Gurgaon, India.

Bharti Airtel, a group company of Bharti Enterprises, is one of India's largest integrated telecom services provider with an aggregate of around 82.6 million customers, 80.19 million mobile customers.

### **Rediff invests in mobile applications company, Eterno**

***Rediff.com has taken a minority stake in Bangalore-based Eterno, a company focused on mobile enabling print, radio and television media companies, mobile handset makers and mobile operators.***

Eterno, founded by former Nokia employees, Umesh Kulkarni and Chandrashekhar Sohoni, provides connected mobile applications with Indian Language support on popular mobile operating systems including Symbian, J2ME and BREW.

Eterno's suite of mobile applications includes IndiSMS - an application which allows users to communicate in nine different Indian languages: Hindi, Marathi, Punjabi, Gujarati, Bengali, Telugu, Kannada, Malayalam and Tamil.

The company also offers IndiMate, an SMS content retrieval platform, and a 'Music Companion' which lets users browse music on their mobile, and download music, ringtones and MP3 songs. Eterno's customers include handset manufacturers and mobile operators Nokia, Vodafone, Airtel and Idea.

Eterno founder, Umesh Kulkarni, said that Rediff.com's minority investment would help the company enhance its development infrastructure and further its efforts in providing Indian newspapers, magazines, radio and TV companies with innovative mobile solutions.

Rediff.com CTO, Venki Nishtala, said: "We are impressed by Eterno's ability to deliver innovative mobile applications in many different Indian languages."

NASDAQ-listed Rediff.com is one of the premier worldwide online providers of news, information, communication, entertainment and shopping services to Indians worldwide. Rediff.com provides a platform enabling them to connect with one another online. The company was founded in 1996. It is headquartered in Mumbai and has offices in New Delhi and New York.

### **Sony Ericsson expands Chennai development centre**

***Sony Ericsson has expanded its product development centre in Chennai, established only in June 2008.***

It has added another 10,000 square metres of space in a new building at the centre, located in DLF City, Chennai.

Sony Ericsson president, Dick Komiyama, said: "India is one of the three most important markets for us. In line with its strategy for the region, Sony Ericsson has established integrated operations in India which include product development, manufacturing, marketing, distribution and after sales service."

Anil Sethi, president of India operations, added that Sony Ericsson would tap the vast pool of very talented young engineers in the Chennai area to create India-specific products and services.

He said that the centre would also serve as a global resource to augment Sony Ericsson's technical capabilities around the world.

"It will also create opportunities for young engineers coming out of the Indian educational system to get exposed to the latest technological practices around the world for which closer interaction with the Indian technical institutes is planned." Sethi said.

## China

### **Jiangsu Mobile adds Nokia Siemens security**

***China Mobile Group Jiangsu Ltd (Jiangsu Mobile) is installing security technology from Nokia Siemens Networks to protect itself against the potential risks brought by its increased use of IP networks and data services.***

According to Nokia Siemens Networks its technology will ensure reliable telecommunications service, provide a secure data experience to customers and help the operator realise new opportunities in its full service operation era.

Nokia Siemens Networks says it worked closely with Jiangsu Mobile to understand and analyse its network security challenges and delivered a tailor-made solution which combines project management, network structure design, system integration and operation and maintenance to address the unique security challenges of communications networks.

Nokia Siemens Networks also provided Jiangsu Mobile with a security evaluation tool based on international standards. This, it says, will help the operator measure the effectiveness of its security system, and evaluate the return on its security investment.

### **Australia's Freshtel poised to sell VoIP offerings into China**

***Beijing telco, AsiaStar Telecom is looking at offering Freshtel's white label VoIP services under the AsiaStar brand.***

The two companies have signed an MoU. Freshtel CEO, Rhonda O'Donnell, said "AsiaStar has expressed interest in deploying Freshtel's mobile Internet telephony solution, calling card solution and fully hosted IP PBX, an internet telephony solution for corporate and SME customers. The MOU marks a period of exploration during which time AsiaStar and Freshtel will assess their requirements and negotiate the terms of a deal."

Freshtel recently entered into a similar deal with Pakistan Telecom, in which Paktel intends to market the service primarily to expatriate Pakistanis in Europe (ExA 16-37, p6).

AsiaStar claims to be China's largest private telecom service provider. According to CEO, Gene Chu, "We believe Freshtel's technology will enhance our ability to bring a comprehensive suite of communication products onto a single platform, enabling AsiaStar to deliver communication services via a virtual e-commerce environment while encouraging individual product developers to participate and enrich the product offering."

## Malaysia

### ***Datacraft has implemented systems based on Cisco Connected Real Estate (CCRE) for Malaysia's 'intelligent city' i-City.***

i-City is a RM2b (\$US0.55b) ICT-enabled commercial development on a 72 acre freehold site in Shah Alam set up as a regional hub for high-technology companies and knowledge communities.

It has been designated by the Multimedia Development Corporation (MDEC) as a MSC Cybercentre. The first phase of the development comprises 100,000 sq metres of Cybercentre office suites has been completed and is ready for occupation.

Future development aims to transform i-City into a fully integrated township comprising a shopping mall, corporate towers and offices, office suites, hotels and serviced apartments. i-City will also house multiple high-performance data centres and a digital media hub.

It has been designed to be the next-generation international and cyber-gateway to Malaysia and is expected to attract global mix of technology companies and knowledge workers, creating a vibrant knowledge-based working environment.

According to Datacraft, "An essential element to help realise this vision is CCRE. The introduction of CCRE means that a converged IP network is built into the underlying infrastructure of every building (similar to common utilities such as power, water and gas), providing a powerful platform to transform the way in which buildings are managed and how services are delivered.

"CCRE is the foundation on which disparate building management systems, HVAC, lighting and transportation, energy management, video and security access controls will integrate with traditional IP-based communication and collaboration systems such as e-mail, messaging, voice and productivity services. Every element from cooling, lighting, security, digital signage to voice and video communication can be controlled centrally."

Datacraft claims that "This revolutionary approach to city design has enabled i-City to help the entire community generate new revenue streams, reduce capital and operating expenditure, and improve overall operations efficiency by reducing the complexity of building systems connectivity, prolonging asset life, and improving management capabilities and performance through real-time information."

When fully completed, a fibre-optics network will span the entire 72-acre development, connecting all of the office suites, commercial towers, retail tenants and hotel to i-City's data centre which is also the communication and operations hub.

A range of network and telecommunication, hosting, software service on demand, estate management and security services will be made available via i-Office2, the designated operator tasked at providing fully managed office services to i-City tenants and residents.

i-Office2 is a joint venture p between Office Squared Malaysia (owned by ServCorp - a global provider of serviced office facilities) and I-R&D Sdn Bhd (owned by Malaysian property company i-Bhd).

## South Korea

### **Korea allows number porting between PSTN & VoIP services**

***The Korean Communications Commission (KCC) is now permitting fixed line users to switch to VoIP services while retaining their fixed line number.***

The move has led consultancy Ovum to predict that VoIP will soon become a mainstream service in South Korea. "The number portability will allow alternative operators to strengthen their competitiveness against incumbent KT by offering cheaper call options," said analyst Charice Wang.

"These operators, such as SK Broadband (previously Hanaro Telecom) and LG Dacom, will see number portability as a strong opportunity."

She added that, "For incumbent KT, it is time for it to change its defensive strategies on VoIP; it should try to take the initiative in the VoIP market to protect its broadband subscriber base...KT has taken a strong defensive stance on VoIP. KT currently dominates more than 90 percent of the fixed-line market.

According to Wang, "[KT] set the VoIP-to-fixed and VoIP-to-VoIP call retail tariff at around the same price as KT PSTN local calls. The cheap legacy telephone service prices and absence of number portability meant that VoIP providers have failed to disrupt the fixed market. It is therefore no surprise that the KCC decided to review the VoIP regulatory framework this year and proposed number portability."

Wang explained that "Korea is known for its unique regulation of VoIP. It is the only country so far to impose interconnection price control on facility-based VoIP operators. This is different to most European regulators, who have taken a 'wait-and-see' approach to VoIP interconnection regulation. The VoIP termination rate is W5.5 (\$US0.004) per minute, and VoIP operators pay W18 (\$US0.014) per minute for outgoing calls to PSTN.

"However, this wholesale tariff regulation has had a limited effect on the development of VoIP. Currently 14 VoIP service providers (nine operators and five value-added service providers) are competing in the market of around 900,000 subscribers. This is relatively limited growth of VoIP in comparison to Japan (15 million as of 2Q07), given the similar situation of advanced broadband infrastructure and penetration."

## Singapore

### **SingTel revenues lifted by Australia & Singapore mobiles**

***SingTel has reported operating revenue up 5.3 percent in a year to \$S3.89b in the second quarter following strong performance in Singapore and Australia where both recorded their best quarterly growth in the postpaid mobile market in recent years.***

Underlying net profit in the quarter fell 12 percent to \$S801m because of the iPhone 3G initiative, the weaker regional currencies, lower earnings from Telkomsel caused by price competition and the inclusion of a \$S41m post-tax loss from Warid Telecom.

SingTel said revenue would have declined only five percent had it not been for the depreciation of the Australian dollar and other regional currencies.

Net profit declined 12 percent to \$S868m after including the exceptional items and the currency translation gain of \$S67m in the quarter. Free cash flow was stable for the first half of the financial year at \$S1.7b compared to a year ago.

Ms Chua Sock Koong, SingTel's group CEO, said: "Singapore and Australia both achieved impressive results, with Singapore recording double-digit revenue growth and Australia accelerating its mobile revenue growth. We further demonstrated our leadership in Singapore as the only operator to bring in the much anticipated iPhone 3G and in Australia we captured the majority share of the iPhone 3G activations."

The Group and its associates, Bharti and Globe, registered more than 170,000 iPhone 3G activations in the September 2008 quarter. Early usage showed that iPhone 3G users in Singapore and Australia delivered an ARPU of approximately 1.5 times

higher than the overall postpaid base. In line with the group's policy, mobile subscriber acquisition and retention costs are expensed immediately on activations.

For the second quarter, the incremental impact of the iPhone 3G activations reduced EBITDA by approximately \$S27m in Singapore and approximately \$A44m in Australia.

During the quarter, OpenNet Pte Ltd, a consortium in which SingTel has a 30 percent equity stake, won the bid from the Singapore government as the NetCo to provide the passive fibre grid for Singapore's Next Generation National Broadband Network.

The Singapore business reported a 10 percent increase in revenue to \$S1.33b from \$S1.21n a year ago. Margin for the Singapore business was 37.5 percent compared with 43.1 percent a year ago attributed mainly to higher mobile selling expenses and mio TV content costs. Excluding the incremental impact of the iPhone 3G initiative and the associated equipment revenue mix, margin would have been 40.1 percent.

Revenue from data & Internet grew 12 percent to \$S383m in the second quarter from a year ago as a result of strong demand for SingTel's service offerings and innovative solutions in managed services and fixed broadband. SingTel added 7,000 fixed broadband customers in the quarter and retained leadership position with 52.9 percent market share.

Mobile Communications recorded an 11 percent increase in revenue to \$S356 m as the number of mobile customers grew 35 percent from a year ago.

SingTel added 121,000 subscribers in the quarter bringing total mobile customer base to 2.87 million with market share gains in both postpaid and prepaid market share. In prepaid mobile, 76,000 customers were added during the quarter, bringing total subscribers to 1.42 million and a market share of 46.7 per cent, an increase of 2.1 percentage points.

SingTel posted its best quarterly growth in the postpaid mobile segment in recent years with 45,000 new customers, reflecting the strong take-up of the iPhone 3G and continued success in targeted acquisition initiatives. As a result, SingTel strengthened its postpaid market leadership with a market share of 45.2 percent.

For the quarter, mobile data services accounted for 34 percent of ARPU, an increase from 29 percent a year ago, boosted by increased mobile data usage. An additional 109,000 customers signed up for 3G mobile services pushing the subscriber base to 1.07 million as at 30 September 2008.

## **SingTel scores \$S1.07b loan facility**

***SingTel has arranged \$S1.07b of new credit facilities with banks in Singapore and Australia to refinance existing facilities and for general working capital purposes.***

SingTel, through its wholly-owned subsidiary, SingTel Group Treasury Pte Ltd, has signed an agreement for a five-year facility of \$S350 million with The Bank of Tokyo-Mitsubishi UFJ, DBS Bank and Overseas-Chinese Banking Corporation. The facility will mature in November 2013.

In Australia, Optus Finance Pty Ltd, a subsidiary of SingTel Optus, has signed a 3.5-year \$A725 million syndicated revolving credit facility with the ANZ Bank, the Bank of Tokyo-Mitsubishi UFJ Ltd, Citibank NA, Commonwealth Bank of Australia and Westpac Banking Corporation. The facility will mature in April 2012.

Ms Jeann Low, SingTel's group chief financial officer, said: "We are pleased with the support demonstrated by our bankers in Australia and Singapore and their confidence in the SingTel Group."

SingTel and Optus have an A+ rating from Standard & Poor's. Moody's Investors Services rates SingTel an Aa2 and Optus an Aa3.

For the half year ended 30 September 2008, SingTel generated free cash flow after capital expenditure of approximately \$1.7 billion. Net debt as at 30 September 2008 was \$7.1 billion, a gearing ratio of 25.8 per cent.

## Thailand

### IPStar boosts Thaicom revenues

***Thaicom Public Company has reported its results for the third quarter, ended September 30 2008, showing revenues from its IPStar service up 62 percent in a year.***

Revenues from sales and services were Baht1,782 million, an increase of 7.9 percent compared to last quarter, due to growth of the satellite and related businesses of Thaicom as well as the telephone business.

Revenues from Thaicom's conventional satellite business were Baht585 million which benefited from the growth of transponder leasing service. Revenues from IPStar services increased 21.9 percent from last quarter due to the growth of transponder leasing and the sales of IPStar user terminals.

As of the end of September 2008, the company's telephone businesses in Cambodia (Cambodia Shinawatra Co, CamShin) and Laos (Lao Telecommunications Co, LTC) increased their subscribers to a total of 1,613,832 subscribers, or an increase of 12.9 percent over the second quarter of this year.

Thaicom's revenues from these businesses, through its 51 percent equity in Shenington Investments Pte since July 25 2007, was Baht485 million, an increase of 6.6 percent compared to last quarter.

Both countries continue to see growth in their businesses. On October 17th, 2008, LTC officially launched the first 3G service in Laos covering Vientiane with expansion to provincial areas scheduled for early next year.

Revenues from Thaicom's Internet access and media businesses were Baht150 million, an increase of 141.9 percent compared to the same period of last year. T

Thaicom reported a net operating profit of Baht12 million for the three quarters due to an increase of 55.1 percent on the revenue from Ipstar compared to the same period of last year.

## New Zealand

### TUANZ and InternetNZ moot merger

***The Telecommunications Users Association of NZ (TUANZ) and InternetNZ have entered into a formal collaborative discovery process "to explore opportunities for closer organisational alignment."***

The possibility of a merger was not mentioned specifically, but in a joint statement the two organisations said: "The sector has for many years been served by a range of advocacy groups representing different constituencies and stakeholder groups. Internet NZ and TUANZ are two of the larger of these.

"Over the years the paths of Internet and telecommunications users have steadily converged and the lines are now blurred and overlapping...Representatives of the two groups have agreed that there is benefit to the organisations, to the industry at large, and to all New Zealanders to be gained from a closer alignment of InternetNZ and TUANZ, including possible amalgamation of some functions or organisational attributes. A discovery process is currently under way to this end."

They added that: "The telecommunications sector in New Zealand is undergoing fundamental structural change, against a backdrop of technology convergence that is leading to a connected world with a digital Internet protocol future."

### **TUANZ sheds staff**

Separately, TUANZ chairman, Chris O'Connell confirmed that TUANZ was scaling back its events operations for 2009 in the light of the global economic downturn.

"Forecasts for sponsorship and attendance at major conferences in 2009 indicate a significant retrenchment by major corporates, and the large conferences that have become a feature of TUANZ's work are expected to suffer."

He added: "They will be reinstated as economic conditions improve, but in the meantime TUANZ has reduced staff numbers in the events and administrative fields."

### **TUANZ calls for Government action on mobile roaming**

***The Telecommunications Users Association of New Zealand has demanded that the Government act to reduce mobile roaming charges as the Commerce Commission embarks on its third enquiry in five years.***

TUANZ CEO, Ernie Newman, said: "TUANZ is utterly frustrated at the time this issue has been around, the discord on this matter between the Commission and the government, and the consequent excessive cost passed onto business and residential users over many years.

"TUANZ asked the Commission as far back as June 2003 to investigate what appeared to be pricing many times higher, and many cents per minute more, than that applicable in other countries...Over the intervening five years the Commission has twice investigated the matter, and both times made comprehensive, thoroughly-researched recommendations to the government in favour of regulation.

"Yet in April 2007 the government chose to reject the advice of its own specialist regulator developed through an open and transparent investigation, and instead made a deal with the mobile phone companies behind closed doors. This gave the companies five years - nine years from our initial complaint - to reduce the rates to a level that regulators around the world had calculated should apply already at that time."

He added: "When an incoming minister is appointed TUANZ will be seeking an assurance that whatever conclusion the Commission reaches, the government will allow the process to run its course. It is crucial that the government not bow to vested interest pressure from the beneficiaries of these excessive prices."

## **Pan Asia**

### **Cisco aims to help channel partners collaborate globally**

***Cisco has launched a programme designed to help its channel partners around the world collaborate with each other to better serve the fast-growing multinational customer segment.***

It claims that, at present, many multinational customers expanding internationally have engaged in separate transactions with local Cisco resellers in each country of their operations.

The new go-to-market strategy is built around a transaction-based partner collaboration model that provides each 'host' partner with policies, processes and tools that enable it to select another Cisco partner as an agent in a different country that can act on the host partner's behalf for the resale of Cisco technologies to new multinational customers.

According to Cisco, this model provides local partners with 'global rights' to select another partner in a different geography to deliver Cisco technology on its behalf. After the host and agent partner engage in and complete a business transaction, the local partner buys the Cisco solution and invoices the customer locally.

"This partner-to-partner collaboration reduces the complexity of deploying the customer's information technology business solutions, streamlines service and support, and provides a means to broaden market opportunities and create competitive differentiation" Cisco claims. Partners will use Cisco's Partner Exchange, a virtual environment that allows channel partners to find, connect with and collaborate with other partners that offer a complementary blend of technology, services and industry expertise.

### **First step to global partner collaboration**

According to Cisco, this 'Global Resale Agent model' represents the first step toward a broader Cisco initiative of enabling partners to form collaborative long-term business relationships." It also represents a move by Cisco to formalise what is already a growing practice among its channel partners.

A recent global study on partner collaboration, conducted by Illuminas Research for Cisco, revealed that partner-to-partner collaboration generates 31 percent of channel revenue and was growing by 15 percent annually, with 62 percent of the partners believing that collaboration would continue to grow over the next five years.

### **BT outsources legacy global net to Alcatel-Lucent**

***BT has awarded Alcatel-Lucent a seven year contract to support its global network operations, by optimising its non-UK non-IP network: a move that will see several hundred BT employees move to Alcatel-Lucent.***

Under the contract, Alcatel-Lucent will manage most of the legacy networks serving BT Global Services' customers. BT says this will enable it to focus on its global 21CN platform "to further improve the customer experience, speed up the delivery of new services and reduce cost and complexity."

Hanif Lalani, the newly appointed CEO of BT Global Services, said: "Alcatel-Lucent's innovative thinking and its experience in delivering best in class services and network management is widely recognised in the industry. BT expects to derive significant cost savings and accelerated network optimisation over the lifetime of this contract."

During the first phase of the project Alcatel-Lucent will assume operations for five legacy global and domestic networks in 27 countries outside the UK, along with the BT Global Managed Platform legacy transport network. Alcatel-Lucent says it already operates more than 70 networks on behalf of service providers around the world, covering more than 140 million subscribers.

**Asian mobile market tipped to pass 50 percent of global by 2011**  
***Ovum has revised its global and Asia-Pacific mobile forecasts and is predicting that connections in Asia-Pacific (including China/India) will more than double from 1.4bn in 2007 to 2.9bn in 2013.***

"This will mean that by 2011, Asia will be home to more than half of the world's mobile connections (from 42 percent in 2007)", said Ovum analyst, Nathan Burley. "However, despite housing more than half the world's connections, lower ARPUs across Asia will mean it accounting for less than a third of industry revenue by 2013."

In developed markets, drivers of connection growth include more multiple connections driven predominately by mobile broadband. In emerging markets, new prepaid subscribers will continue to drive growth as the cost of ownership continues to fall, Burley said, "We continue to see only limited impact on connections from negative macro-economic conditions."

However, Ovum expects overall ARPUs to fall especially in emerging markets. "We do however still expect healthy revenue growth at an average annual growth rate of nine percent through to 2013," Burley said. "Data will also continue to grow as a proportion of industry revenue.

Ovum is forecasting that, by 2013, China and India will have 1.7 billion mobile services, Australia 28 million, Singapore 8.1 million and Indonesia 225 million.

## Technology

### **Qualcomm's Kayak: a Net surfboard for the developing world** ***Mobile phones far outnumber PCs in developing nations but they're not the best devices for surfing the net. Qualcomm, has a vision of devices that are part mobile phone part PC that will meet this need, cheaply and effectively.***

Qualcomm has launched 'Kayak' a reference design based around its existing mobile handset chipsets and billed as "a PC alternative [that] leverages the widespread availability of 3G wireless broadband to bring Internet connectivity to markets where wired Internet access has often been difficult to access or unaffordable."

According to Qualcomm Kayak will "fill the niche that exists between desktop PCs, which normally require landlines or separate accessories for connectivity, and Internet-capable wireless devices."

Kayak has also been designed to exploit the growing trend to deliver applications that normally run on the PC from within the cloud, as software as a service accessible from a browsers. So Kayak users will be able to gain access to these applications without having a PC. Kayak devices will come with a inbuilt browser from Opera software integrated with the Qualcomm chipsets that, Qualcomm says, will be "full-featured Web 2.0-capable browser able to perform at desktop resolutions."

Rod Hamlin, senior vice president of sales, Americas for Opera Software, explained that "Web-based applications open up new possibilities for people in emerging markets for whom packaged software can be expensive. Combining the Opera browser with Qualcomm's chipset is a great way to help bring the power of connected computing to millions of new Internet users around the world."

A Kayak device will be a 'box' into which you'll be able to plug either a TV or computer monitor as a display device and a standard keyboard and mouse for input. It will use Qualcomm's dual-core MSM7xxx-series chipsets to provide both computing and connectivity. There will also be a music player and/or 3D gaming capability.

Qualcomm is planning to have demonstration units for trial in the first quarter of 2009 manufactured by Inventec Corporation of Taiwan. These will operate on both CDMA2000 (1x-EVDO) networks and WCDMA (HSPA) networks.

However Qualcomm's main plan is to market Kayak as a reference design and set of recommended software specifications that will be made available to device manufacturers who will then be able to "that take advantage of the high level of integration, inherent connectivity and comprehensive functionality."

Further down the track it expects that Kayak will use Snapdragon, Qualcomm's planned mobile device chipset, announced in November 2006 and billed as "a significant step toward realising the company's vision of universal mobility."

Qualcomm promised that Snapdragon would "add expanded functionality to future generations of consumer electronics - from gaming/portable entertainment devices to pocket computers and beyond - by delivering ubiquitous mobile broadband access, together with unsurpassed processing performance and battery life."