

ExchangeAsia

Volume 16 Issue 21

ISSN 1320 – 2669

08 June 2008

China

China takes fixed broadband lead from US

According to a report from Dittberner Associates, China has overtaken the USA as the largest fixed broadband subscriber market.

India

Ericsson to promote telemedicine via HSPA

Ericsson and Apollo Telemedicine Networking Foundation (ATNF) are laying the foundation for the introduction of mobile health services.

Transcendental Meditation meets Telepresence

UTStarcom names new India chief

Singapore

Microsoft teams with SingTel on Windows Mobile Applications

Microsoft has revealed the latest move in what is shaping up to be a major battle for the future mobile applications market.

South Korea

Strix wireless mesh picked for intelligent highway trial

The state-run Korean Highway Corp has selected Strix System' Access/One Outdoor Wireless System as the winner for the intelligent highway infrastructure test bed.

Vietnam

Cisco teams with Ministry of Information and Communications

Vietnam's Ministry of Information and Communications is to collaborate with Cisco for the socio-economic development of Vietnam.

Taiwan

Global Mobile and NextWave team for WiMAX

WiMax operator, Global Mobile Corporation, and WiMAX technology provider, NextWave Wireless have set up a collaboration.

Mobile WiMAX goes on show

New Zealand

New Zealand plans total TSO revamp

New Zealand's communications and information technology minister, David Cunliffe, has called for review of the local service Telecommunications Service Obligations.

Pan Asia

Verizon Business expands Ultra-Long-Haul network

Technology

3GPP finalises femtocell architecture

China

China takes fixed broadband lead from US

According to a report from Dittberner Associates, China has overtaken the USA as the largest fixed broadband subscriber market.

The report "Fixed Broadband Subscriber Survey: 1Q08", says that, in the first quarter, China added 4.8 million subscribers - more than 13th ranked country, Australia has in total. Overall, global fixed broadband subscribers increased five percent in 1Q08 to reach 355 million. Year-on-year growth in China was 28 percent taking the total number of subscribers to 71.6 million. Growth in the US was 12 percent, to give a total of 70.2 million.

According to Dittberner, "With a 20 percent household penetration, PC households growing at over 20 percent, and the cable TV operators poised to jump into the fixed broadband services market, China will continue to pull away from the USA. Germany also had good annual growth [23.4 percent] but this was because it had been slow to deploy broadband in the past. It will close the gap with third place Japan, but is unlikely to overtake it."

Dittberner adds: "DSL makes up 67 percent of the access technologies while cable modem's share slipped to 20 percent. However, the new technology to watch is not the much talked about FTTH, but DOCSIS 3.0 based subscribers. Hanaro Telecom is the leader in this technology and since 2Q07 has added over 400,000 '100 Mbps HFC' subscribers."

"The only proposed revenue source for these ultra-high bandwidth networks is video services like television and VOD. There is just not enough revenue in those services outside of North America, and in North America the MSOs can more economically deliver those services," said James Heath, Dittberner's director of broadband research.

India

Ericsson to promote telemedicine via HSPA

Ericsson and Apollo Telemedicine Networking Foundation (ATNF), part of the Apollo Hospitals Group, are laying the foundation for the introduction of mobile health services.

They claim that telemedicine delivered using HSPA technology will enable the provision of affordable and accessible healthcare to millions of people in remote areas. A MoU between Ericsson and ATNF will enable them to work together to educate people and to publicise, promote and implement the use of telemedicine deployed as an application over broadband-enabled mobile networks.

ATNF will provide expertise in telemedicine, in the form of applications that provide instant medical advice remotely over the network. This will increase access to quality healthcare once the HSPA network is in place, and sets the stage for the creation of a stable ecosystem, based on WCDMA/HSPA technology, to support a range of innovative services.

The initiative builds on Ericsson and Apollo's previous collaboration in 2007 for the Gramjyoti project which showcased the benefits of mobile broadband applications across 18 villages and 15 towns in rural areas. It is part of Ericsson's support for the UN Millennium Development Goals, which aim to halve extreme poverty and hunger by 2015, while improving education, health and gender equality. Ericsson has been working on several initiatives to demonstrate the use of telecoms in healthcare provision.

Telemedicine harnesses telecommunication technology to deliver healthcare and education to patients in remote regions. It enables easier access to healthcare for rural populations, helping to provide critical health information, save time and money, and reduce the need for travel.

More than a million people, predominantly women and children, die each year in India because of a lack of healthcare. A further 700 million people have no access to specialist healthcare, as 80 percent of specialists live in cities. At the same time, the teledensity of India is increasing at a phenomenal rate.

Mats Granryd, President of Ericsson India, says: "Mobility has proven to be a major catalyst for social and economic empowerment, and a key ingredient in helping to bridge the digital divide. Through our ongoing partnership with Apollo, we are putting an ecosystem in place to support telemedicine applications once the 3G network is deployed."

Prathap C Reddy, chairman of Apollo Hospitals Group, said: "With the availability of wireless technology, mobile health will be integrated into the healthcare delivery system. The new mantra could well be 'Healthcare for anyone, anywhere, anytime.' In our silver jubilee year, Apollo Hospitals dedicates itself, to make mobile health a reality for everyone in India."

The agreement is part of Ericsson's support for the UN Millennium Development Goals, which aim to halve extreme poverty and hunger by 2015, while improving education, health and gender equality. Ericsson has been working on several initiatives to demonstrate the use of telecoms in healthcare provision.

Transcendental Meditation meets Telepresence

Systems integration specialist, Datacraft Asia says it has been selected by "a global spiritual university offering transcendental meditation and Vedic education" to install Cisco TelePresence facilities at various campuses in India to improve collaboration and reduce costs."

Datacraft has installed Cisco TelePresence 3000 units comprises a three-panel, 65-inch plasma screen with a specially designed table that seats six participants.

The Indian campuses are in Karaundi near Jabalpur and Ayodhya in Uttar Pradesh and, according to Datacraft, "Using the virtual meeting technology, it is now easier for students to collaborate and interact directly with the lecturers and subject matter experts wherever they may be. At the same time, the lecturers can save time and money spent on travelling across India."

According to the Transcendental Meditation web site, "Vedic Education is ...education that develops the consciousness of the student - the knower - and awakens total brain functioning through the Transcendental Meditation technique. Students grow in the ability to achieve anything as they enliven the unlimited creative potential within their own consciousness."

UTStarcom names new India chief

UTStarcom has appointed Jagdish Devgan as senior director of sales for India, based in its Gurgaon office.

He will lead UTStarcom's account relationships with BSNL and MTNL. He joins UTStarcom from Comverse Network Systems where he was responsible for managing the company's sales activities for its key customers in India. Prior to Comverse he was the vice president of marketing and sales at Xalted Information Systems and before that headed marketing and exports for ITI Ltd.

Singapore

Microsoft teams with SingTel for Windows Mobile Applications

Microsoft has revealed the latest move in what is shaping up to be a major battle for the future mobile applications market.

It has launched a programme to get independent software vendors, developers and operators developing applications for Windows Mobile OS, and has roped in a major telco, Singapore Telecom, to help it.

Windows Mobile enjoys a strong position in the smartphone market but competition is strengthening: the Nokia-backed Symbian is well-established, the LiMo Foundation's Linux based OS is rapidly gathering momentum, as is the Google-backed Android: not to mention whatever Steve Jobs might announce on June 9 for the spectacularly successful iPhone.

Now, Microsoft has announced its Connected Services Accelerator Program, billed as a series of projects designed to "incubate, and ultimately commercialise, new types of consumer, business and mobile services through collaboration with independent software vendors, developers and operators." Accelerator projects will use the Microsoft Connected Services Sandbox as the platform for the creation, development and testing of these services.

Through the Accelerator Microsoft hopes to seed the development of new, cutting-edge mobile applications for vertical markets, which can be supported on Windows Mobile-based devices as well as Windows Vista-enabled mobile broadband PCs. Microsoft suggests the collection of patient data in healthcare, telemetry and fleet-management, real-time financial services, equipment and property management, and utilities management as likely targets. Microsoft will collaborate with SingTel to kick off the first project under the programme. SingTel will make its network infrastructure and resources available to participants for development and testing.

According to Martha Bejar, corporate vice president for the Communications Sector at Microsoft, "Our mission for the industry is to drive the transition to Telco 2.0, a new era of communications where service providers are delivering hundreds if not thousands of new services. Building on our investments in the Sandbox development environment, the Connected Services Accelerator Program aims to build a truly global marketplace for service creation that, working with operators, will lead to the commercialisation of a new wave of innovative services."

Microsoft signalled its foray into the 'Telco 2.0' world in July 2007 when it launched the Connected Services Sandbox, billed as "an initiative to help promote [our] Telco 2.0 vision of delivering scores of new service offerings that merge traditional telecommunications offerings with Web 2.0 applications."

In April 2008 Microsoft announced another significant foray into the mobile market with the launch of new software products for mobile network operators designed to help them manage the growing number of Windows Mobile OS based devices on their networks and provide additional services to users of these devices.

Under this initial SingTel-sponsored project qualified ISVs and developers are being invited to create business applications which will be entered in the GSMA Innovator Awards, in the Most Innovative Vertical Application category, with the winner to be announced at the Mobile Asia Congress in Macau November 18-20. SingTel will provide technical and commercial guidance to support project development teams. Microsoft says that future projects are being planned for other scenarios,

The programme is aimed at smaller player. To qualify, developers and ISVs must have annual revenues not exceeding \$US20 million and must not be owned by a publicly traded company or subsidiary, or mobile operator. Proposals will be

evaluated according to a set of criteria that includes market potential, scalability, ease of use, ease of deployment, customer demand and originality.

South Korea

Strix wireless mesh picked for intelligent highway trial

The state-run Korean Highway Corp (KHC) has selected Strix System' Access/One Outdoor Wireless System (OWS) as the winner for the intelligent highway infrastructure test bed.

The Intelligent Highway project is a multi-phase, multi-year nationwide highway project between Korea's two largest cities of Seoul and Pusan to determine a cost effective method, in contrast to legacy cellular services, for Korea's intelligent, interactive, digital highway infrastructure to deliver multimedia applications to a wide range of end-user, vehicular and other Wi-Fi enabled devices.

The system will enable the delivery of video surveillance and voice streamed to and from public safety and commuter vehicles and provide the architecture for a simplified communications infrastructure for traffic control and related systems.

The test bed is located on the Kyungbu highway at a 31km stretch between Pangyo and Osan. Key criteria for the tests included the ability to achieve continuous 8Mbps end-to-end connections for streaming video, VoIP and multimedia applications at speeds reaching 100km/hour.

TTA, the Korean public standard organisation, hosted the benchmark tests performed by WLAN highway project of Korean Highway Corp. All major wireless/Wi-Fi mesh network equipment manufacturers have been represented. Broadwave, a Strix Systems distributor in Korea, working with its partners POSDATA and Hyundai HDS, submitted Strix Systems Access/One OWS for the evaluation.

Strix OWS wireless mesh nodes were installed every 1 km with an average three or four hops from wired backhaul and mobile mesh nodes were installed in vehicles. According to Strix, "The test results proved Strix Access/One wireless mesh network equipment yielded the highest performance over any competitor with the highest throughput, lowest latency and continuous robust performance successfully exceeding the base-line results which were not achieved by any other manufacturer.

Strix says is Access/One OWS achieved more than double the backhaul throughput of any vendor at 18Mbps over four hops while the moving vehicle tests also proved Strix Systems ability to maintain an average high-density megapixel video streaming of 8~10 Mbps at not only the defined maximum test threshold of 100km/h, but exceeding 180km/h."

"We have not seen such a large area deployment of wireless mesh network with WLAN technology in the world," said Kim, Hongchol, Manager, Korean Highway Corp. "The main application of this project is to monitor real, local highway road status and to transfer it to drivers in real time through these mesh network."

According to Strix, "The success of the test bed supports a number of applications: First, for public safety - when vehicle (A) is on the highway and captures video, another vehicle (B) far from vehicle (A) monitors the captured video data in real time for information. Second, as an example of an average person - a user watches traffic conditions, watches the news and receives travel information streamed in high-quality via broadcast TV over IP while moving in the car. Third, whenever, wherever users are working, they may perform their job via wireless access data service and sensor networks scattered near roadside are to be interconnected with various applications."

Vietnam

Cisco teams with Ministry of Information and Communications ***Vietnam's Ministry of Information and Communications (MIC) is to collaborate with Cisco to identify areas in which Cisco networking technologies can benefit the socio-economic development of Vietnam.***

Cisco will also bring in its top technical and business transformation experts to help the MIC migrate its current network to the latest platforms, paving the way for the implementation of an e-government program.

The cooperation was formalised at a meeting between Le Doan Hop, minister of information and communications; Nguyen Minh Hong, vice minister of information and communications; Rick Justice, Cisco's executive vice president for Worldwide Operations and Business Development; Owen Chan, president for Cisco in Asia Pacific; Chris Khang, vice president for Cisco's Asia region; and James Chia, director general for Cisco Vietnam.

The agreement came as Cisco kicked off the Vietnam leg of the Asia tour of the Cisco Express-Network on Wheels (NoW), a mobile showcase featuring of Cisco technologies in a 40-foot container. Vietnam is the fifth country after Singapore, Thailand, the Philippines and Malaysia to host the Cisco Express-NoW. The mobile showcase will spend the next three weeks in Hanoi, Danang, Ho Chi Minh City and Can Tho.

"The Cisco Express-NoW will help us not only showcase the power of technology in Vietnam's main cities but also reach out to individuals, organisations and communities that we were not able to access before" James Chia, Cisco's general director for Vietnam, said. "They will see and touch technologies that are on the leading edge. This is part of Cisco's commitment to contributing to the national transformation by bringing in advanced and emerging technologies as well as transferring the skills needed to use those technologies."

The Cisco Express-NoW showcases technologies such as unified communications, public safety, digital signage, building automation, energy control and facilities management systems that enable the network to connect people across boundaries. Equipped with satellite and mobile Internet connectivity and rapidly deployable communications, Cisco says it can also be called on to provide essential communications services for first responders in the event of a natural disaster.

The mobile showcase also features solutions from regional sponsors CNA, EMC, Emerson Network Power, Linksys, Panduit and SingTel. Also participating in the tour are Cisco Express-NoW Vietnam sponsors SBD, FPT Information System, DTS, FPT Distribution and VNPT.

Taiwan

Global Mobile and NextWave team for WiMAX ***WiMax operator, Global Mobile Corporation, and WiMAX technology provider, NextWave Wireless have set up a collaboration "to make end-to-end mobile WiMAX solutions a reality for the global market."***

The two organisations will set up a WiMAX field trial and demonstration network that will leverage shared resources to provide Global Mobile's end-users with "a robust, personalised mobile experience through the delivery of next generation mobile multimedia services, including mobile TV, interactive media services, and digital audio."

It will use NextWave's MXtv technology including the V5 base station and access service network (ASN) gateway platform, and "a full range of feature-rich devices, based on NextWave's 'no compromise,' highly integrated WiMAX chipsets and innovative software provided by PacketVideo (PV), a NextWave Wireless subsidiary." This trial network will be deployed in Taipei.

Global Mobile was awarded its WiMAX operator license in October 2007 by the National Communications Commission. As part of the joint market development activities, Global Mobile and NextWave will identify and plan for innovative WiMAX-based devices designed around NextWave's NW2000 WiMAX chipsets. These devices will be in form factors that consumers are familiar and comfortable with - from fixed customer premises equipment, personal computers (embedded and/or add-on), mobile handsets and consumer electronics devices, including personal media players, mobile Internet devices, portable navigation devices, among others.

Also, Global Mobile will leverage PV's MediaFusion content management and delivery platform discovery and CORE embedded media application framework to provide an on-device portal that delivers an integrated mobile media experience, a unified content catalogue, service presentation, and media player through a single client application. The integrated PV solution also includes a full electronic service guide (ESG), which based on a combination of user surveys and usage profiles, can be customized for each subscriber.

This trial comes on the heels of the recently formed Consortium of Mobile Broadband (CMB), a new group organised to facilitate and accelerate the development of WiMAX in Taiwan. Led by Rosemary Ho, CMB seeks to strengthen cooperation among WiMAX licensees through providing for a number of important objectives such as network sharing, including base stations, division of labour required for international cooperative projects and stepping up communications with Taiwan's regulatory agencies.

Mobile WiMAX goes on show

Progress on M-Taiwan, the Government's three year old WiMAX project was demonstrated at the 2008 WiMAX Expo in Taipei from 2-6 June.

WiMAX Expo Taipei was organised by the Taipei Computer Association and the Taiwan External Trade Development Council and co-organised by the WiMAX Forum, Industrial Technology Research Institute and the Institute for Information Industry.

It featured 60 exhibitors in 250 booths overing Applications, WiMAX Components, System Products and Testing. Taiwan's notebook manufacturers ACER, ASUS and Quanta displayed their latest laptops with embedded WiMAX chipsets.

The "Mobile Taiwan Application Development Project" is executed by the Industrial Development Bureau of the Ministry of Economic Affairs. The project is centred on the deployment of wireless broadband network infrastructure for the provision of M-services, M-living, and M-learning.

It aims to advance equipment industry development and private investment through the provision of application services with the ultimate goal of creating a full wireless broadband network ecosystem in Taiwan.

- **NEC WiMAX gear accredited**

Taiwan's Industrial Development Bureau, part of the Ministry of Economic Affairs has certified NEC WiMAX base stations and peripheral equipment supplied to Tatung InfoComm of Taiwan.

NEC's equipment is the first 802.16e gear to pass IDB's test of the M-Taiwan projects and NEC says it intends to use the verification to speed up sales of its WiMAX gear globally.

In August 2007, WiMAX commercial licenses were issued to six operators in Taiwan, including Tatung InfoComm. Tatung started its process to select the equipment supplier for the system and NEC was chosen as its partner.

- **Qisda and Runcom demo WiMAX video smartphone**

Taiwanese ODM/OEM provider, Qisda, and Runcom Technologies have demonstrated video streaming over a WiFi smartphone.

The companies say they have worked closely for the past several months to develop a mobile WiMAX dual mode smartphone with embedded broadband wireless communications capabilities that is able to run video online streaming applications.

"Runcom's RNA200 ASIC, the most popular WiMAX chip in the world, was mainly used until today for CPE, USBs and PCMCIA terminals; now together with Qisda's excellent smartphone platform the RNA200, was also integrated into a Smartphone mobile terminal as well" said Israel Koffman, VP of marketing of Runcom Technologies.

First International Telecom (Fitel) has deployed Starent Networks' equipment to enable high-bandwidth, multimedia services through its mobile WiMAX network, which serves more than one million subscribers.

In 2007, Fitel acquired spectrum for a WiMAX network in Northern Taiwan. The company is deploying Starent Networks' ST16 multimedia core platform, for access service network (ASN) gateway and home agent functionality, in its WiMAX network. Also Fitel is using the ST16 for lawful intercept and as its in-line services capability to deploy peer-to-peer protocol detection.

The Fitel deployment is part of the M-Taiwan project Fitel plans to complete initial deployment and start testing the WiMAX network in downtown Taipei by the first half of 2008.

New Zealand

New Zealand plans total TSO revamp

New Zealand's communications and information technology, David Cunliffe, has called for a 'fundamental review' of the local service Telecommunications Service Obligations (TSO).

"A key conclusion that has emerged from the government TSO review is that reform of the Local Service TSO has to be 'back to basics'," Cunliffe said. "Industry feedback has made clear that the existing arrangements for the local service TSO are seen as clumsy, time-consuming and an expensive tax on entrants."

Noting other issues of concern as being the lack of specific input-based performance metrics, the lack of openness to contestable entry, and the low minimum speed requirements, Cunliffe said: "A key issue for discussion is whether a fundamental overhaul reflecting the spirit of the original Kiwi Share is now in order."

He also questioned whether the rural service aspects of the TSO should be made fully contestable and technology neutral, and/or whether it should be upgraded to cover basic broadband, adding: "I welcome Telecom's willingness to discuss entering into commitments for investing all TSO revenue from other carriers as new capital expenditure targeted at low population rural areas and to leave 'no stone unturned' for improving rural broadband." He said that further discussion with industry and consumer groups, including Telecom, would occur over the coming months.

Pan Asia

Verizon Business expands Ultra-Long-Haul network

Verizon Business says it is expanding its ultra-long-haul (ULH) network to enhance communication services for companies doing business in the fast-growing Asia-Pacific region.

The company will deploy 155kms of ULH network in Japan between Tokyo and Maruyama, a move that it says is part of its planned 2008 investment to advance its global network capabilities and that complements its "pioneering deployments of the high-capacity optical technology in the United States and Europe."

"Expansion of our ULH network reflects Verizon Business' commitment to meet the evolving needs of our business and government customers worldwide," said Joe Cook, vice president of global network engineering and planning for Verizon Business.

The company claims to have already has deployed and activated more than 51,500kms of ULH in the US and plans to add 6,437kms by year-end. New key routes are Seattle to Portland, Oregon; Denver to Dallas; New York City to Baltimore; St Louis to Memphis, Tennessee; Indianapolis to Nashville, Tennessee; Atlanta to Mobile, Alabama; Buffalo, New York to New York City; Portland, Oregon, to Sacramento, California; and Boston to New York City.

In Europe, Verizon Business completed 3,100kms of ULH network in late 2007 on the core backbone network and turned up service in April of this year. Main network hubs are located in London, Amsterdam, Frankfurt, Paris and Brussels. When completed, the ULH network will extend 80,467kms. According to Verizon it enhances delivery of high-bandwidth applications such as video, wireless, high-speed Internet, multimedia content distribution, real-time imaging, storage networking and Web services. "With its ability to transmit signals up to 2,000kms (approximately four times farther than traditional technology) without regeneration, ULH allows elimination of thousands of pieces of equipment and physical connections among network elements. This improves network performance and efficiency while also allowing quicker network restoration and provisioning."

Technology

3GPP finalises femtocell architecture

3GPP has reached agreement on the Home NodeB (HNB) architecture for femtocell-to-core network connectivity.

The new architecture follows an access network-based approach, leveraging the existing Iu-cs and Iu-ps interfaces into the core service network. It defines two new network elements, the HNB (aka Femtocell) and the HNB Gateway (aka Femto Gateway). Between these elements is the new Iu-h interface.

The HNB connects to an existing residential broadband service and provides radio coverage for standard 3G handsets within a home. HNBs incorporate the capabilities of a standard NodeB as well as the radio resource management functions of a standard Radio Network Controller (RNC). The HNB-GW is installed within an operator's network and aggregates traffic from a large number of HNBs back into an existing core service network through the standard Iu-cs and Iu-ps interfaces.

The new Iu-h interface includes a new HNB application protocol (HNBAP) for enabling highly-scalable, ad-hoc HNB deployment. The interface also introduces an efficient, scalable method for transporting Iu control signalling over the Internet.

3GPP has now transitioned to the phase of developing detailed specifications. This work is targeted for completion by the end of 2008.