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India

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China

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Verizon Business says it aims to activate the US-mainland China portion of the Trans-Pacific Express (TPE) submarine cable in advance of the Beijing Olympics.

Singapore

City Telecom, M1 & StarHub team to bid for NetCo

City Telecom (CTI) of Hong Kong and M1 and StarHub of Singapore have signed an MoU to form a consortium to bid for Singapore's Next Generation Network.

Malaysia

Cisco a MRCB to develop intelligent real estate centres

Cisco and Malaysian Resources Corp Berhad (MRCB) will collaborate to develop intelligent real estate centres in Malaysia.

South Korea

Operators want overseas handsets permitted

Vanuatu

Digicel Pacific awarded GSM licence

Pan Asia

Pacific Crossing upgraded to 1Tbps

Microsoft goes after the call centre market

Microsoft has launched a full scale assault on the call centre market,

Tata Communications to offer Cisco TelePresence globally

Vodafone picks Chordiant to improve customer interactions

WiMAX event a sell-out

Technology

FTTH Council measures 'green-ness' of fibre networks

Alcatel-Lucent to base SME comms products on Red Hat Linux

IMS a \$US300b opportunity for mobile operators?

New ISO/IEC standard for IT disaster recovery services

NEC enters IPTV equipment market

India

CDG says low cost CDMA handset driving market growth

The CDMA Development Group (CDG) has seized on the results of a Yankee Group study to claim that CDMA dominates the ultra low-cost handset market in India.

"Research...suggests that the availability of low-cost CDMA handsets has been a key driver towards increasing teledensity in the region," CDG says. The Yankee Group study, entitled "CDMA Imports Driving Ultra Low-Cost Handsets in India: Price Trending Analysis," is available on the CDG Web site: www.cdg.org/

"Availability of low-cost CDMA handsets changed the competitive landscape in India," said BV Raman, CDG's representative in India. "In India and other parts of the globe, this healthy competition is making wireless telecommunications more affordable and is contributing not only to CDMA's rapid expansion but increasing teledensity worldwide. Given CDMA's aggressive and highly economical evolution path, the strength of the ULCH market has positioned CDMA2000 operators to benefit from the Indian government's imminent spectrum allocation for 3G."

The Yankee Group report, based on import data from Indian government sources between January and October 2007 claimed that: 62 percent of all handsets imported into India were below \$US50; 78 percent of all sub-\$US50 imports were CDMA models from 13 vendors; 94 percent of CDMA imports were below \$US50; Total CDMA import volumes exceed GSM by a margin of 52 percent to 48 percent; The average selling price (ASP) for all imported CDMA handsets is 68 percent lower than the GSM market average -- on average over the period, the cost of CDMA handsets across the entire device portfolio is \$US72 less than GSM."

The Yankee Group also determined that India's total mobile teledensity has increased as a result of the availability and variety of cheap CDMA handsets from multiple vendors. According to the Telecom Regulatory Authority of India (TRAI), GSM and CDMA subscriber bases grew 13.4 percent and 12.12 percent respectively in Q3, 2007. The TRAI data indicates an increasing growth rate for CDMA subscribers, up from 10.05 percent in the previous quarter.

CDG claims that more than 82 very low-end CDMA2000 handsets (under \$US50 wholesale) are available globally from 19 suppliers in highly competitive emerging markets such as Bangladesh, China, Ghana, Indonesia, Mexico, Nigeria, Pakistan, Sri Lanka and Venezuela. Very low-cost CDMA handsets are also becoming available in developed markets with the debut of the "Cricket EZ" handset sold by Cricket Communications in the United States for \$US49.99 - a trend that, according to CDG, "will rapidly transform the wireless industry."

Vanu & GTL team to deploy software defined base stations

Vanu and GTL Limited, part of the Global Group and India's largest network services provider, have formed an alliance to deploy a field trial of Vanu's software radio based solution.

According to Vanu, it will allow multiple operators on a shared common network to maintain independence, gain cost benefits and lower cost of entry through a combined active/passive wireless infrastructure.

The alliance covers deployment of the Vanu Anywave MultiRAN system by GTL on its customers' active and passive infrastructure assets. In addition, GTL will offer its sourcing, provisioning, equipment deployment and system integration services.

Vanu's Anywave MultiRAN, is billed as "an innovative multi-operator radio access network based on [Vanu's] highly disruptive software radio technology." According to

Vanu, "with Global Group's tower assets [it] forms an industry first - an active/passive infrastructure that allows carriers to serve new markets without the time and expense of a traditional network build. This will provide global rural carriers with a solution to open new revenue streams from the explosive subscriber demand in emerging markets and areas with low ARPU. Commercial deployment is subject to necessary government and regulatory approvals in India."

Said Dr Vanu Bose, Vanu's, chief executive officer, "Global wireless operators face the prospect of deploying new wireless standards, the opening of new spectrum bands, managing large legacy subscriber bases and integrating wireless acquisitions into their service portfolio, forcing them into faster upgrade cycles requiring support for multiple standards in their network."

"The unique combination of an active/passive access solution which combines the Vanu Anywave MultiRAN and Global Group's extensive tower footprint and proven network expertise will well serve the rural areas that can not afford the time or the investment and yet require immediate, highly flexible, cost-effective solutions."

Mr Charudatta Naik, COO of GTL, said: "Interest in RAN sharing is growing around the world as carriers across large geographic areas look to technology to serve areas with low population density or low ARPU. The formation of this alliance and the deployment of the field trials in India will bring in the 'best of breed' innovative technology to offer an unbeatable value proposition to our customers."

The Anywave MultiRAN is claimed to allow each carrier sharing the system to independently monitor and modify network parameters like a traditional standalone network. Additionally, the individual carrier independently controls upgrades to their network without affecting other carriers using the same system. For example, one carrier can migrate to a new air-interface standard through remote software downloads to the system, independently of the decisions made by other carriers sharing the Anywave MultiRAN system.

At the core of the Vanu MultiRAN is the Vanu Anywave software radio platform which performs the entire signal processing for each wireless standard entirely in software. The Vanu Anywave MultiRAN cellular system currently supports standards at the 850, 900, 1800 and 1900 MHz bands and both CDMA and GSM operation.

● **Vanu opens office in New Delhi**

Vanu, a US-based developer of software radio solutions for cellular operators, has opened an office in Delhi to market its solutions tailored to emerging wireless markets, particularly to India's rural communities.

Vanu, previously announced the establishment of a research and development (R&D) centre in Bangalore (December 2007). Both the New Delhi office and the R&D centre in Bangalore, are divisions of Vanu India Private Limited, a subsidiary of Vanu, Inc.

The company claims to focus on solving three unique challenges facing Indian operators today: to reduce the costs associated with carriers running multiple standards; to provide cost-effective solutions to carriers serving large populations with low ARPU; and to help carriers differentiate their own offerings in a crowded market landscape.

Said John Winn, executive vice president, business development, "India is a strategic, long-term market for our company and we will continue to increase headcount in both offices this year with the best local engineers and marketing professionals to assist us with our continued list of 'firsts' in wireless technology."

The Vanu product line of software radio solutions had received a number awards including: IEEE Spectrum Magazine's "Wireless Winner," 2007; GSM Association Technology Award for Most Innovative Infrastructure; SDR Forum's Industry

Achievement Awards, Telecommunications Magazine's "Ten Coolest Companies" Award among others. The company has also been featured in The New York Times, The Boston Globe and RCR Wireless publications in the US.

China

TransPacific cable aim to go live for Beijing Olympics

Verizon Business says it is working closely with its Asian partners to activate the US-mainland China portion of the Trans-Pacific Express (TPE) submarine cable in advance of the Summer Olympic Games in Beijing, a month earlier than the scheduled ready-for-service date.

The TPE Consortium comprising Verizon Business, China Telecom, China Netcom, China Unicom, Korea Telecom and Chunghwa Telecom signed a construction and maintenance agreement on December 18, 2006 in Beijing. The final splice on the US-to-mainland China segment is scheduled for late April. System integration and testing will begin in late April and will conclude with the provisional network acceptance, followed by system activation in July. "This is one of the most aggressive submarine cable builds I've been involved with in more than 15 years," said Ihab Tarazi, Verizon Business vice president of global network planning.

Singapore

City Telecom, M1 & StarHub team to bid for NetCo

City Telecom (CTI) of Hong Kong and M1 and StarHub of Singapore have signed an MoU to form a consortium to design, build and operate a passive infrastructure network in Singapore capable of delivering ultra high broadband speeds.

The consortium will jointly submit a bid in response to the Infocomm Development Authority of Singapore's RFP for the Network Company (NetCo).

"Currently, CTI, through its wholly owned subsidiary, HKBN's end-to-end network in Hong Kong, supports the widest range of symmetric broadband services from 25Mbps up to 1Gbps, and has launched Hong Kong's first fibre-to-the-home residential broadband services. We welcome StarHub to join us in this project, as their experience and diversity complement the strengths of CTI and M1. We are confident that this will create sparkling synergy for the consortium," said Ricky Wong, Chairman of CTI.

"The proven expertise and experience that the partners bring to the consortium, backed by their knowledge of the local operating environment and conditions, will ensure a strong and resilient bid. We are committed to the building of a network infrastructure for the future, one that will enable Singaporeans to enjoy high-speed and cutting edge broadband technology in the years to come," said Neil Montefiore, CEO of M1.

"This consortium brings to the table a unique set of talented corporate shareholders who have both the vast experience in building ultra-high speed broadband networks as well as the local expertise in managing complex telecoms operations in Singapore. Together, we have the capacity to build and deliver the key elements of an Open Access network for a robust infocommunications service industry, as well as create a resilient platform that can cater to a continuing stream of new broadband technologies for the foreseeable future," said Terry Clontz, CEO of StarHub.

Malaysia

Cisco and MRCB to develop intelligent real estate centres

Cisco and Malaysian Resources Corp Berhad (MRCB) will collaborate to develop intelligent real estate centres in Malaysia.

The agreement was announced during the launch of the Cisco Express-Network on Wheels (NoW), a mobile showcase featuring key Cisco technologies that empower "the connected life."

MRCB is a major urban property and infrastructure developer in Malaysia. The group specialises in civil, environmental and energy infrastructure development including beach rehabilitation projects, road works, road concessions, educational colleges, hospitals, power plants, and is the nation's biggest developer of high-voltage transmission networks.

The collaboration will involve the deployment of Cisco's Connected Real Estate (CRE) solution, a core multiservice IP platform and network system that allows for easy integration of IT and building automation networks for MRCB's future property developments. It provides a single IT environment that allows the integration of multiple technologies, bringing together the convergence of data, voice, video, building systems, safety and security, and building automation technologies into play simultaneously.

"Cisco CRE's open-standards-based building infrastructure encourages a centralised approach to monitoring, maintenance and control of the building environment, where building-control systems across all properties can be controlled from a single place, thus reducing maintenance costs and prolonging building lifecycles," said Shahril of MRCB.

The collaboration, beginning with MRCB's KL Sentral development, will focus on its latest site at Lot G, comprising more than 2.8 million square feet of retail, office, residential and hospitality properties. This will be followed by the Penang Sentral development, a 30-acre site involving the development of a transportation hub, integrated with retail, commercial and residential developments.

According to Cisco's Kumaran, "The collaboration with MRCB will result in some of the largest deployments of Cisco CRE solutions in Malaysia, and certainly create the largest intelligent real estate centres in Malaysia, in the KL Sentral and Penang Sentral developments."

"Cisco has the right technology and expertise to help developers like MRCB build intelligent buildings and transform their business model into one that is based on the provision of services. Cisco has been driving the concept of establishing connectivity as the fourth utility, after electricity, gas and water, in Malaysia. This strategic relationship marks an important step in that process," he added.

South Korea

Operators want overseas handsets permitted

According to the Korea Times, South Korea's three mobile operators are working together to overturn government regulations which have effectively blocked foreign designed handsets from the market.

The three networks expect to be able to start selling handsets from the likes of Nokia and Apple by the end of this year. The paper quoted Louise Ingram, communications manager of Nokia's Asia-Pacific region, saying "We have always said that we are open to exploring opportunities in Korea if and when there is acceptance from Korean telecom operators of open mobile architecture,"

The Korea Times cited a high-ranking official of one of the firms saying that SK Telecom and KTF are trying to get Nokia to modify its S60 based smartphones to fit South Korea's regulatory and technological standards.

Nokia has a large manufacturing facility in South Korea but all its handsets are exported.

Vanuatu

Digicel Pacific awarded GSM licence

Digicel Pacific has been awarded a licence to operate a GSM network in Vanuatu after being awarded a mobile license in Fiji two weeks ago.

Digicel Pacific says it will now offer a seamless pan Pacific GSM network across five markets: Papua New Guinea, Tonga, Fiji and Vanuatu.

According to Digicel, "Vanuatu is a perfect example of a country where the commitment of the Government has resulted in a speedy end to the monopolisation of the telecoms sector by a company owned by the state and private interests such as Telecom Vanuatu Limited (TVL). The entire liberalisation process was completed in less than five months and can be used as a perfect template for other countries looking to benefit from the enormous benefits of competition to their country."

With mobile penetration in Vanuatu at just 16 percent, Digicel is planning an investment of \$US35 million in building a GSM network with "unbeatable network coverage." Digicel Vanuatu plans to expand its existing operation in Vanuatu to more than 70 employees.

Digicel Vanuatu has acquired the previously owned Pacific Data Solutions (PDS) switch building and associated assets in Port Vila, Vanuatu. The building will be used to house the Digicel Vanuatu office and telecommunications operations.

Digicel Pacific Ltd. is a sister company to Digicel Group, the largest mobile operator in the Caribbean and new entrant to the Central American mobile market.

Pan Asia

Pacific Crossing upgraded to 1Tbps

Pacific Crossing Limited, the operator of what it claims is only independent, carrier-neutral trans-Pacific cable system, PC-1, has become the first company to operate a Terabit of lit capacity across the Pacific Ocean.

The company has announced completion of a systems-wide upgrade, which brings online an additional 600Gbps of trans-Pacific capacity to its system, bringing its total trans-Pacific lit capacity to just over the 1Tbps threshold.

According to Pacific Crossing, "The new core network upgrade, powered by Fujitsu's submarine line terminal equipment, Flashwave S650, represents a re-engineering of PC-1's transmission and traffic management layers, extending PCL's maximum capacity by more than three-fold while facilitating the future deployment of advanced network interfaces and service options. The six month contract was completed without any disruption to existing network traffic."

Said Mark Simpson, CEO of Pacific Crossing: "The completion of our network upgrade not only represents a new platform for our services, but also signifies the completion of PCL's reengineering as a company. It clearly shows our ability to execute and that we're back in business after our financial and corporate restructuring, and ready to deliver services to our customers."

The new Fujitsu equipment replaces the previous PC-1 system - which had a design capacity cap of 640Gbps - with a new platform that boosts the design capacity to at least 3Tbps. The new core platform also supports advanced networking features such as ethernet and beyond networking interfaces as well as advanced wavelength-level access. Capacity on PC-1 is available to customers in bandwidth increments ranging from STM-1 to 10G waves with flexible fully-protected and unprotected subscription options.

As part of the core network upgrade, Pacific Crossing has also put in place extensive dark backhaul between its cable landing stations in Harbour Pointe, WA, and Grover Beach, CA to its PoPs in Seattle, San Jose, Palo Alto, and Los Angeles. Together with its existing backhaul facilities in Japan, PCL now offers city-to-city connectivity across the Pacific.

The PC-1 system has a total length of 21,000km. It comprises four fibre pairs.

Microsoft goes after the call centre market

Microsoft has launched a full scale assault on the call centre market, announcing joint product development with and taking equity in Aspect Software, the world's largest software developer focussed solely on contact centres.

The deal will give Microsoft an immediate entry to upper echelons of the call centre market. Aspect claims to have installations at more than 5,000 customer sites worldwide, including two thirds of the Fortune Global 100, eight of the top 10 global banks, eight of the top 10 global telcos, the top seven global airlines and eight of the top 10 Indian call centre outsourcers.

Microsoft's equity share and the price paid have not been disclosed. Aspect is privately held and majority owned by San Francisco-based private equity firm Golden Gate Capital. Microsoft says its equity investment in Aspect will "accelerate the development and adoption of the new solutions and services."

Under the deal, Aspect will design its Aspect Unified IP contact centre solution to interoperate with Microsoft's unified communications platform. "Our alliance and the resulting joint solutions are designed to enhance sales, service and support capabilities for organisations of all types and sizes, across many industries," said Jim Foy, president and CEO of Aspect. "We strongly believe that the combination of Microsoft Office Communications Server 2007 and Aspect Unified IP will redefine the way companies interact with their customers. With this alliance and its equity investment, Microsoft recognises Aspect Unified IP as an ideal fit with its software-powered voice platform." Microsoft is already strongly committed to Nortel through their Innovative Communications Alliance, and it is not clear how much its teaming with Nortel will compete with joint Nortel-Microsoft offerings.

Aspect says it will begin development of the optimised solutions immediately. It plans to release in 2008 a new version of its NET-based Aspect Unified IP product which delivers interoperability with Microsoft Office Communications Server 2007, and which will include "powerful ask-an-expert capability using instant messaging and presence technology in Office Communications Server 2007."

Aspect plans to extend the interoperability of its Unified IP with Office Communications Server to include software-powered voice in subsequent releases. This, it says "will enable contact centres to seamlessly escalate customer interactions to different channels - phone, instant messaging, e-mail or conferencing - while addressing reliability, scalability and reporting needs."

Aspect will also build a professional services and systems integration practice for Microsoft's unified communications software to help customers deploy, customise and manage Office Communications Server.

Tata Communications to offer Cisco TelePresence globally ***Tata Communications has launched a global telepresence network service, using the Cisco telepresence technology.***

Tata Communications is the first Asian service provider to achieve Cisco Certified TelePresence Connection status enabling the delivery of the Cisco TelePresence solution. According to Tata, "The Cisco TelePresence certification process goes beyond static service measurement of network performance. It adds leading practices based on current industry standards for network architecture, management and performance including measurement, staff, processes and tools. These are audited regularly to help ensure that service providers are committed and able to offer an optimal Telepresence experience providing customers with robust, end-to-end communication solutions that meet their business needs today and into the future."

Said Vinod Kumar, president, global data and mobility solutions, "With our unparalleled global reach into India, the Americas, Europe and Asia Pacific regions as well as our strength on key international routes, Tata Communications is uniquely poised to serve the needs of customers who wish to use TelePresence to facilitate richer communications."

Vodafone picks Chordiant to improve customer interactions ***Vodafone has selected Chordiant Software's Chordiant Decision Management and Chordiant Recommendation Advisor to enhance customer experience across all channels - from contact centres and retail stores to web and mobile channels - worldwide.***

According to Chordiant, "Decision Management will provide Vodafone with a way to make the most of every customer interaction be that in store or by phone and will also give Vodafone the flexibility to generate the offers that will ensure that the needs of customers and the business are met simultaneously. The Chordiant Recommendation Advisor will ensure that relevant and personalised offers can be developed, based on a customer's past behaviour, in real-time, thus creating value for customers. In some countries, the software may be combined with Chordiant Marketing Director to support the development of targeted marketing campaigns."

WiMAX event a sell-out

WiMAX Forum Congress Asia, the first of the WiMAX Forum's new series of trade shows, has sold out.

The organizers say the original floor plan has now been extended to add an extra 15 stands (135 square metres) in order to satisfy industry demand for the event. "The response to the show has been fantastic," said Sanjay Singh, head of sales for the WiMAX Forum Congress Series. "The event is now set to be the biggest showcase of WiMAX services and products ever to be held in the Asian region."

"The pace of WiMAX development in the Asia region is accelerating beyond all expectations," said Ron Resnick, WiMAX Forum president.

Technology

FTTH Council measures 'green-ness' of fibre networks

The FTTH Council Europe has attempted to balance the greenhouse gas reductions achieve by activities undertaken over an FTTH network against the environmental impact of laying and operating FTTH networks.

The Council's Sustainable Development and Fibre (SUDEFIB) Committee, in conjunction with PriceWaterhouseCoopers, concluded that, in a European context,

FTTH could achieve a positive contribution to greenhouse gas reduction after 14 years, with a very limited range of applications.

The modelling technique looked at the resources consumed and greenhouse gasses produced from installing an FTTH network under various deployment scenarios and at the greenhouse gas reductions from a specific, but very limited set of applications. The conclusion was that "the environmental impact of the deployment of a typical FTTH network will be positive in less than 14 years considering only the three selected services. Additional either existing or developing applications will further emphasise these results."

SUDEFIB looked at three deployment scenarios: urban dense, urban wide and rural areas and at four deployment techniques: existing ducts or urban sewage, traditional trench, micro-trench, aerial hanging). Three specific applications were considered: Teleworking, telemedicine and home assistance. Telemedicine looked up three cases: teledialysis, telemedical meetings and medical imaging transfer. It was assumed that 10 percent of the working population could telework three days per week in 2011, and that 20 percent of the population 75 years old and over could benefit from home assistance.

The total environment impact of the FTTH network took into account full life cycle factors including production of passive and active equipments, transport, implementation, power consumption and end of life. These were balanced against the environmental gains of the three applications considered. The deployment phase of an FTTN represents approximately 80 percent of its total environmental impact, with the biggest impact being the length of new cable ducts needed per home passed.

The study concluded "For the first 15 years of a given network implementation, greenhouse gas emission savings per user are of 330kg approximately or the equivalent of a car travelling 2000kms. For the other 15 years beyond, the savings are 780kg or the equivalent of a car travelling 4650kms due to the fact that the network is depreciated and only part of the infrastructure needs to be renewed...If further physical barriers are reduced (ducts access in particular), and a full range of services are developing, contributions will be far bigger."

Although the study was based on European inputs, the committee says it could be extended to other geographies, or to specific local deployments. And it is clear that the range of applications considered is very limited: it is highly likely that many more will emerge, all of which will substitute for greenhouse gas producing alternatives that require people to move from A to B.

Since the council exists to promote FTTH, the study did not examine the wider question of whether better environmental outcomes could be achieved by deploying a much less resource intensive FTTN network and balancing this against the more limited range of applications that its lower bandwidth would support.

Alcatel-Lucent to base SME comms products on Red Hat Linux ***Alcatel-Lucent will migrate its existing Linux based IP-PBX and collaboration and unified communication servers for SMEs to Red Hat Linux software.***

Alcatel-Lucent claims that the evolution toward Red Hat Enterprise Linux and Red Hat Realtime technology, a major component of the recently announced Red Hat MRG, will enable it to strengthen reliability, scalability, security and stability throughout the lifecycle of its SME portfolio of voice, data, mobility and collaboration products.

"Alcatel-Lucent will benefit from Red Hat's hardware certification program on its next-generation hardware platforms, and from Red Hat's extended support cycles including security updates."

Tom Burns, COO of Alcatel-Lucent's enterprise activities said Red Hat was "the obvious choice for Alcatel-Lucent. By relying on the market leader in open source

software and services for our operating system and middleware needs, we can focus our development efforts on delivering innovative ways for fixed and mobile users to communicate and interact with each other.

The Alcatel-Lucent SME portfolio comprises the OmniPCX Office family of IP-PBX systems and the Extended Communication Server family of collaboration and unified communication servers, all of which are based on Linux distributions. Red Hat-based versions will be available 1H 2009.

IMS a \$US300b opportunity for mobile operators?

ABI Research estimates that the IP Multimedia Subsystem (IMS) will provide mobile telephone operators with \$US300 billion in extra revenue over the next five years, as major operators such as Sprint, Verizon and BT increasingly deploy IMS across their networks in a quickening tempo starting this year.

"Until recently IMS was mainly the province of fixed-line operators," said senior analyst, Nadine Manjaro, "but now it is essential to the success of mobile and fixed operators who are losing revenue from traditional sources."

One impediment to IMS's success in the past has been the difficulty of proving the business case for it. But Manjaro suggests that planners were incorrectly considering IMS as a service rather than a platform. "In fact IMS supports multiple services, and it takes several of them to make a valid business case. To use the hackneyed phrase, there has been a paradigm shift in operators' strategic thinking." ABI says the major remaining challenge for operators is to integrate IMS without seriously disrupting existing services.

New ISO/IEC standard for IT disaster recovery services

The International Organisation for Standardisation (ISO) has released a new standard for IT disaster recover services.

ISO/IEC 24762:2008, *Information technology – Security techniques – Guidelines for information and communications technology disaster recovery services* aims to "offer guidance on the information and communications technologies and services necessary for disaster recovery as part of business continuity management."

The standard supports the operation of an information security management system by addressing the information security and availability aspects of business continuity management in time of crisis. It includes guidelines on the implementation, testing and execution aspects of disaster recovery and can be applied to both in-house and outsourced disaster recovery services. It is available from ISO national member institutes or online from www.iso.org

NEC enters IPTV equipment market

NEC Corporation has entered the IPTV market with the launch, in Japan initially, of what it says is IPTV business with "end-to-end IPTV solutions and video delivery systems to communication carriers."

NEC says it will expand this business to the international market and aims to generate ¥50 billion (\$US510m) in sales by 2010. The core of its offering is the new NC7500-VD video delivery server, to be launched in April, NEC has also adopted Cascade's 'QualiTVision' middleware - which has enabled IPTV deployments in Hong Kong and Thailand - to offer services such as time shifting, Network PVR and interactive services.