

ASIA IS A BUSINESS IMPERATIVE... NOW MORE THAN EVER

# ASIAN TECHNOLOGY NEWSLETTER

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A bimonthly newsletter of developments in the IT, semiconductor and telecoms industries

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## CHINA/HK

**Computer & Technologies Holdings (C&T)**, a systems integrator in Hong Kong, took over **Breakaway Solutions Asia Pacific (BSAP)**, a Singapore-based technology company, from **Hutchison Harbour Ring** of HK. The company agreed to acquire a 90% stake in BSAP. C&T has also pledged to loan BSAP up to US\$2m to fund its growth. C&T cited that as BSAP's clients were expanding into China, C&T will be able to serve their needs, while BSAP could help C&T expand in Southeast Asia. BSAP was set up in 2000 by **ICG Asiaworks** of the US as a JV with **Internet Capital Group**, a US-based online-trading platform -investor. (November 16, 2001)

**Hitachi Ltd** and **Toshiba Corp** have partnered with **Top Group** of China to establish a new computer software company in Shanghai, **Shanghai Huazhiyin Information System Co.** Hitachi and Toshiba supplied ¥600m (US\$4.9m) of registered capital toward the initial US\$10m investment. The total investment is expected to reach US\$20 million. The new Sino-Japanese JV is expected to become one of China's largest software exporters to Japan, with the company forecasting US\$37.5m in exports by 2003. The Japanese investors also jointly established a software park to facilitate their cooperation with Top Group, which will provide funding, personnel and training for the JV. (November 5, 2001)

**Hong Kong** and **Korea** have signed a MoU on cooperation in information and communications technology. Under the MoU signed in Seoul, Hong Kong and Korea will cooperate in a wide range of areas, including business partnership and JVs, exchange

## INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative.

BDA is a corporate finance advisory firm that helps multinational clients to identify and to execute acquisitions, divestments, JVs and other strategic alliances in Asia.

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Andrew Huntley  
Managing Director

of policy and regulatory information, and joint research. Hong Kong and Korea will benefit from the common strengths of both places. The Hong Kong SAR government has entered into similar arrangements on IT cooperation with six other countries, including Australia, Canada, India, Israel, Finland and the UK. (November 9, 2001)

**Motorola Inc**, the US telecommunications equipment giant, announced that it will invest US\$6.6bn in China over the next five years and double the annual production of its Chinese subsidiary and JVs. Motorola's investment in China will reach US\$10bn by 2006. The annual output of Motorola's China unit, **Motorola China Electronics Ltd**, and its eight JV firms are expected to double to US\$10bn by 2006. Annual output includes the revenues of domestic exports and JV output, which will reach approximately US\$5bn by the end of 2001. (November 7, 2001)

**NEC**, Japan's biggest mobile phone maker, and **Matsushita**, maker of Panasonic phones, announced that they will jointly develop 3G mobile phones with major Chinese telecommunications firms. NEC and Matsushita will launch a JV by the end of 2001 in an effort to popularize 3G cell phones in China and gain a bigger share of the world's largest mobile phone handset market. NEC and Matsushita recently joined forces to share the costly burden of developing 3G handset technology. They are currently the only suppliers of handsets for the world's first 3G service by **NTT DoCoMo**. The JV is expected to be capitalized at about US\$2.4m. The two firms will also ask **China Mobile Communications** and other carriers expected to adopt the WCDMA mobile phone standard used by NTT DoCoMo to take stakes in the JV. NEC and Matsushita aim to use the JV to help set WCDMA as the leading standard in the Chinese market, where US and European manufacturers now control approximately a 70%

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share. (November 28, 2001)

**Nokia Networks** of Finland announced that it will set up a R&D center in Hangzhou, China, to develop platform technologies for Nokia's 3G mobile networks. Nokia Networks and the **Zhejiang Provincial Government** have signed an MoU for the new project. The center will focus on software development and will start operations at the beginning of 2002. The R&D activities of the center will be carried out in cooperation with an unnamed local Chinese company. (November 23, 2001)

**Pihana Pacific Inc**, Honolulu-headquartered Internet exchange service provider, has opened its sixth, and last, IDC in Asia Pacific. Located in Hong Kong, the US\$20m center has completed Pihana's six-country rollout that began in October 2000. As with Pihana's facilities in Honolulu, Seoul, Singapore, Sydney and Tokyo, the 45,000 sq ft center will provide Internet exchange, co-location and other managed services to carriers, Internet service providers, application service providers, content providers and enterprises in the region. **Hutchison Global Crossing** of HK, **New T&T** of HK, **New World Telephone** of HK and **PCCW HKT** of HK will be establishing fiber access nodes in its Hong Kong facility. Since its founding in January 2000, Pihana has raised US\$236m in private equity from **Columbia Capital**, **Goldman Sachs**, **GE Capital Telecom**, **Hewlett-Packard**, **Morgan Stanley Dean Witter Private Equity** and **UBS Capital**. (October 1, 2001)

**Sony Corp** will become the first Japanese company to make notebook computers in China, aiming to produce and locally market its *Vaio PC* by early 2002. The consumer electronics giant plans to produce 200,000 units in the first year, all of which will be sold in China. Sony will also begin production of desktop PCs, taking advantage of the 30% annual growth in China's PC market. Although its PCs will be double the price of those already available in China, Sony aims to play up its brand name and Vaio's compatibility with other audio visual devices to target wealthy consumers and businesses. With shipment of approximately seven million PCs a year, China's PC market is slightly larger than a half of Japan's

market but is expected to eclipse Japan's market by 2005. (November 16, 2001)

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operation, Telkom-Mobile, into Telkomsel itself following the deal with SingTel. (November 1, 2001)

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## INDIA

**Intel Corp** plans to invest US\$25m in India's technology capital of Bangalore to set up a technology development center. Intel, which currently employs 500 engineers in six different locations at Bangalore, plans to consolidate the majority of its activities in the new building. Despite one of the worst years in the history of the semiconductor market, the company has continued its aggressive global spending plans. The Bangalore center, which is Intel's largest non-manufacturing site in Asia, works on applications and technologies for e-business and develops software and hardware for networking and communications. The company said it has taken advantage of India's vast army of cost-efficient English-speaking software workers to scale up its operations in the country. (November 6, 2001)

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## JAPAN

**SK Telecom Co**, a major wireless telecommunications service operator in Korea, has announced that it will invest in **Mobile Broadcasting Corp**, a Tokyo-based company that plans to launch a satellite digital broadcasting service for mobile TV sets in 2003. Mobile Broadcasting, established in Tokyo in 1998 by investors such as **Toshiba Corp** and **Toyota Motor Corp**, plans to raise its capital from the current ¥5bn (US\$40.5m) to ¥15bn (US\$121m). SK Telecom will participate in Mobile Broadcasting's capital-increase plan and take about 8% stake in the Japanese firm, making it the second largest shareholder following Toshiba. Mobile Broadcasting and SK Telecom will exchange information, cooperate in their businesses and jointly operate a broadcasting satellite. (October 31, 2001)

## INDONESIA

**Singapore Telecommunications Ltd**, Asia's sixth-largest telecom group, further expanded its regional mobile network with its acquisition of a 22.3% stake in Indonesia's **Telkomsel** for US\$602m. Fresh from its US\$9bn buyout of Australia's **Cable & Wireless Optus**, the purchase of Telkomsel from Dutch telecoms group **KPN Telecom NV** will give it a major presence in six cellular markets in Asia with a reach of more than 15 million customers. Telkomsel, Indonesia's largest mobile operator with 2.2 million subscribers, is expected to be a good acquisition for SingTel given the growth potential in the country. Telkomsel announced that it will merge its own cellular

**Walsin Technology Corp**, a Taiwanese manufacturer of electric passive devices listed on the Taiwan Stock Exchange, has signed a contract with **NEC Infrontia** of Japan to acquire a 70% stake in NEC Infrontia's 100% owned subsidiary, **Nitsuko Electronics Corp**. NEC Infrontia is an affiliate of the **NEC Group**. Walsin Technology and NEC Infrontia added ¥1.4bn (US\$11.3m) and ¥500m (US\$4m), respectively, to Nitsuko Electronics' capital, with the former holding a 70% stake and the right to operate Nitsuko Electronics. Nitsuko Electronics produces film capacitors and wave filters mainly for the NEC Group as well as the **Matsushita Group**, **the Fujitsu Group**, **Toshiba**, **Sanyo**, **Hitachi**, and **Sharp**. The investment in Nitsuko Electronics is a stepping stone for Walsin Technology to tap the Japanese market and further its position in the global market of passive devices. Through the investment, Walsin Technology will be the exclusive supplier of passive devices for

NEC Infrontia and its related enterprises in Japan and abroad for three years. (November 1, 2001)

plant due to its proximity to Korea and good transportation facilities. (November 21, 2001)

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## KOREA

**China** and **Korea** are planning to cooperate in the semiconductor industry in a bid to cope jointly with the ever-growing business difficulties facing their related industries. Twenty-nine domestic representatives from relevant companies, including **Samsung Electronics**, are visiting China to explore ways of promoting bilateral cooperation in the semiconductor industry. In particular, the **Korea Semiconductor Industry Association** will sign an MoU with its Chinese counterpart to promote mutual exchanges and cooperation. The delegates will also hold a seminar with Chinese business partners and visit relevant government authorities, organizations and enterprises. (October 30, 2001)

**Hynix Semiconductor** of Korea sold its STN-LCD business unit to **Hyundai LCD**, a JV between China's **Beijing Orient Electronics** and Korea's **Semiconductor ENG**, for W75bn (US\$58m). Hyundai LCD will take over Hynix's LCD-related assets, paying W40bn (US\$31m) in November 2001 and the rest by March 2002. Hynix, which sold the unit in a desperate bid to improve the company's financial structure, is also participating in Hyundai LCD with a 15% stake. Semiconductor ENG, one of the local LCD manufacturers, signed an MoU with Hynix to purchase the business together with the Chinese partner. (November 26, 2001)

**LG Cable** announced that it will set up a manufacturing base in China to meet the anticipated growth in the market, which has emerged as the third largest market for optical cables after the US and Europe at US\$600m, or 10% of total world demand. LG Cable said it is also contemplating a JV with a third or fourth ranking Chinese telecommunications firm to secure solid demand for the products manufactured at the new facility. It is currently favoring the port city of Tianjin as the site for the

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## SINGAPORE

**Avaya Singapore**, a networking and call center solutions provider in Singapore, announced that it will invest S\$49m (US\$28m) to expand its activities and business in Asia. Avaya, which was spun off from **Lucent Technologies** in 2000, has already invested US\$80m in the region over the past year from its Singapore-based headquarters. The company currently has over 800 employees and 25 offices in Asia Pacific. Its operations include two laboratories, two R&D centers, four training centers and five executive briefing centers. A major part of the investment will go toward expanding these support services, especially in the training and support of channel partners. (October 3, 2001)

**Davnet Ltd**, an Australia-headquartered broadband access provider, has sold its network infrastructure assets in Singapore to **Tridor Pte Ltd**, a Singapore telecommunications company. Davnet recently cut funding to its Canadian, Hong Kong and Singapore subsidiaries to focus more on its business in Australia. Davnet Singapore, with assets worth S\$3m (US\$1.7m), was put under voluntary liquidation in August 2001. Incorporated in 1999, Tridor is a provider of broadband access, wireless access, Internet protocol telephony, IDC solutions, intranet and video streaming. The company claims that this acquisition makes Tridor the largest owner and operator of in-building Ethernet broadband network infrastructure in Singapore. (October 16, 2001)

**Ednovation**, an e-learning solutions provider in Singapore, announced a partnership with **Pearson Broadband** to launch SchoolDNA-KnowledgeBox in Asia. The deal will combine Ednovation's SchoolDNA technology with KnowledgeBox, Pearson's digital curriculum initiative. The deal will also give Pearson, the multimedia broadband education arm of UK-listed **Pearson plc**, a 1.4 % equity stake in Ednovation.

The two companies are planning to bring SchoolDNA-KnowledgeBox to Hong Kong, Japan, Malaysia, Singapore, South Korea, Taiwan and other markets in the region. In addition, Ednovation aims to partner with local content providers in each country to develop content suited to the educational environment of each market. (November 5, 2001)

**Gemplus Technologies**, the Luxembourg-headquartered Smartcard maker, announced that it will invest an additional S\$100m (US\$55m) in its Asia Pacific headquarters in Singapore. The investment is for new plant, machinery and facilities, and will be spent over a period of five years. Gemplus currently has four manufacturing hubs in the Americas, Asia and Europe. Established in 1988, Gemplus employs approximately 953 staff in Asia Pacific, of which 755 are in Singapore and 123 are in China. Globally, the company employs 7,800 people in 37 countries. Gemplus plans to grow its R&D center in Singapore from 80 engineers to about 170 engineers over the next five years. (November 1, 2001)

**Siemens AG** announced that it will spend S\$50m (US\$27m) over the next two years to consolidate its operations in Singapore. The investment is for a new building that will house its 11 legal entities in Singapore. These include **Siemens Business Pte Ltd**, **Siemens Medical Instruments Pte Ltd**, **Siemens Dematic Pte Ltd** and **Siemens Advanced Engineering Pte Ltd**. Construction for the new building is expected to commence in November 2001 and will be completed by 2003. It will also house offices and R&D labs as well as showrooms for the various Siemens industrial products and solutions. (November 2, 2001)

**Siemens Dematic Pte Ltd**, a logistics and factory automation equipment supplier, is investing S\$25m (US\$13.5m) to build research and testing labs for the electronic manufacturing services industry in Asia Pacific over the next five years. Its Advanced Manufacturing Laboratory (AMT Lab) in Singapore is its first lab facility in Asia and its second in the world, after the US. The US lab cost US\$10m to set up and was officially opened in October 2001. Called the Advanced Assembly Technology (AAT) Center,

the 11,000 sq ft facility is based near Atlanta, US. The new lab in Singapore is equipped with a complete Surface Mount Technology line and testing equipment, and will create solutions in new product prototyping, pilot runs, advance process consultation and training. (October 26, 2001)

**TrustAsia Pte Ltd**, a Singapore-based Internet security service provider, has invested S\$4m (US\$2.2m) in a security facility in Singapore. Called Trust Hub, the facility houses technology that generates and stores digital certificates owned by TrustAsia's 550 customers in Singapore and the rest of Asean. These certificates help identify and authenticate the customers in e-commerce transactions. TrustAsia provides trust services, including digital certification, public key infrastructure (PKI), online payment solutions and Internet domain-name management. The company also plans to set up similar Trust Hubs in Shanghai and Thailand early in 2002. TrustAsia raised US\$5.5m in seed funding in July 2001, and US\$3.5m in August 2001. Investors include US-based **VeriSign Inc** and **International Business Group**, Singapore-based private investment company **WestStar Ventures**, and Japanese venture capital companies **Nippon Venture Capital Corp** and **Net Capital**. (October 17, 2001)

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## TAIWAN

**Applied Materials**, a supplier of semiconductor manufacturing equipment and services in US, will open a parts and components distribution center in Taoyuan County in northern Taiwan in December 2001. The distribution center is part of Applied Materials' global parts and components management service network. Applied Materials expects the Taoyuan distribution center to become the first link in an Asian supply chain. (November 30, 2001)

**Chunghwa Telecom Co Ltd**, Taiwan's former state-run monopoly, announced it has partnered with **Digital**

Demand Streaming Services. (November 14, 2001)

**Island Inc** to provide additional web content for its customers. The move comes at a time when Chunghwa faces increasing competition in all sectors including wireless, long-distance, and Internet services, as Taiwan continues to deregulate. With over three million data and Internet service customers through its wholly-owned subsidiaries, including Taiwan's major Internet service provider, **HiNet**, Chunghwa joined Digital Island's Private Content Exchange (PCX) program to help entice new customers with its additional content. The PCX program enables Chunghwa to expand its content delivery reach without requiring major investments in building its own delivery network. Chunghwa will also resell Digital Island's 2Deliver services, such as Content Delivery, Live Streaming and On-

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## THAILAND

**Nokia** and **Advance Info Service Plc (AIS)**, Thailand's largest mobile phone operator, have signed a US\$60m worth agreement to expand AIS GSM phone networks. The agreement also includes the supply of value-added services platform equipment and professional services. Nokia will supply AIS with GSM network equipment, including Ultrasite base stations, switching centers and a WAP gateway. The base station answers the increasing demand for higher voice and data traffic in mobile networks and the evolution to mobile Internet usage. (November 30, 2001)

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### ABOUT BDA

Business Development Asia is a corporate finance advisory firm which assists multinational companies in expanding their businesses in Asia through JVs, acquisitions and divestments. BDA helps clients to find local business and has senior advisors in Bangkok, Jakarta, Kuala Lumpur, Manila, Seoul, Shanghai, Taipei and Tokyo. For further information on BDA's services or on any of the articles in this newsletter, please contact Euan Rellie in New York, Charles Maynard in Tokyo, Andrew Huntley in Singapore, Simon Wu in Shanghai or Paul DiGiacomo in Hong Kong.

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