

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

ASIAN TECHNOLOGY NEWSLETTER

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

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CHINA/HK

Hong Kong-based **China.com** has successfully launched its IPO on the NASDAQ, raising some US\$97m. Corporate investors include Internet giant **AOL**, online advertising company **24/7 Media**, China roads and bridges developer **New World Infrastructure**, China's state-run news agency, **Xinhua**, and Taiwanese maker of computer storage media, **CMC Magnetics Corp.** China.com delivers content, community, and commerce to Chinese-language audiences in China, Hong Kong and Taiwan. China.com posted a loss of US\$8.5m in 1998 on revenue of US\$3.5m. (July 13, 1999)

Digital Microwave Corp., a US-based telecommunications equipment manufacturer, has received two orders totaling US\$10.4m from the **China United Telecommunications Corp (China Unicom)**. Under the terms of the deals, Digital Microwave will supply digital microwave radios for the expansion of China Unicom's GSM mobile telephone networks in Guangdong and Chongqing provinces. The orders were won with local telecommunications equipment manufacturer **Beijing Telecom Equipment Factory**, a partner of Digital Microwave in China. (July 2, 1999)

China Telecom (HK) Group Ltd has sold 156 million shares in **Cable & Wireless HKT**, formerly Hongkong Telecom. The sale sees China Telecom (HK)'s stake fall from 12.16% to 10.86%. The company remains the second largest shareholder after **Cable & Wireless**, which holds 54% of the

INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative. BDA is a corporate finance advisory firm which helps multinational clients to identify and execute acquisitions and JVs in Asia. We have developed a focus on the technology sector, in pace with the growing level of M&A and other investment initiatives within this sector in Asia. In this issue we focus on online brokerages and profile a selection of those which have been springing up throughout the region.

If you think that BDA's services may be useful to you, please contact us in New York on (212) 265-5300, or in Singapore on (65) 533-8500.

Andrew Huntley
Director

company. (July 7, 1999)

Sina.com, one of the leading portals for the Chinese Internet community, has signed up San Francisco's email solutions provider **Critical Path Inc** to roll out a new Chinese language e-mail service and infrastructure. The agreement will enable the email solutions provider to gain access to the rapidly growing global community of Chinese Internet users. (July 5, 1999)

Korea's **Trigem Computer Inc** has started construction of motherboard and PC production facilities in Shenyang, China. The facilities, which are expected to be completed by October 1999, will be equipped with eight production lines for motherboards and two system lines for a production capacity of an annual 2.4 million motherboards and 1.2 million PCs. (June 21, 1999)

INDIA

Indian computer software firm **Maars Software Ltd** has announced a tie-up with **IBM** to market its proprietary Enterprise Resources Planning (ERP) software, Maarsman. The product is an integrated solution for manufacturing industries in the small and medium sector. The firm also recently signed-up with IBM as an e-business partner to offer a range of IBM's training products and e-business solutions in the Indian market. (July 7, 1999)

Zenith Computers Ltd, a leading PC company in India, is in the process of buying software firms in Singapore and the United States as part of its plans to enter the software business. The company will spend Rs500m (US\$12m) in the next six months on buying out a software company each in Singapore and the US as part of the plan to enter

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the software business. It is also in the process of merging two software companies, Mumbai-based **Zenith Infotech** and Singapore-based **Zenith Soft**, with Zenith Computers for offering comprehensive hardware and software services to its customers under one roof, like its competitors **Wipro** and **HCL**. (July 2, 1999)

IBM is buying out the entire stake in its India JV with **TATA**, except for 1%, which the company's MD and CEO Ranjit Limaye terms as symbolic of the relationship that the two partners have enjoyed over the past seven years. (June 2, 1999)

Videocon International, one of India's largest consumer electronics and home appliances companies, is launching its set-top-boxes Net TVs in August 1999. The company plans to manufacture 250,000 units per annum. Videocon is also seeking to become a national (A-grade) Internet Service Provider in India. Currently, no one else is manufacturing set-top boxes in India. (July 12, 1999)

INDONESIA

The Indonesian government is no longer seeking to sell shares in **Indonesian Satellite Corp (Indosat)** on the stock exchange but is instead seeking a strategic partner for the company. The German telecoms giant **Deutsche Telekom** is being seen by the Indonesian government as a potential strategic partner for the state-owned international phone operator. Indonesia is selling stakes in some 12 companies this year in a bid to raise capital for the state budget. (July 12, 1999)

JAPAN

Computer Associates has teamed up with Japan's **Softbank Corp** to target its products at small-to-medium businesses in Japan. The two companies

will establish a new "Enterprise Solution Center" by Q3 1999, which will be under the control of **Softnet Company**, a Softbank company. This center will provide leading system integrators (SIs) and value-added resellers (VARs) with sales training, including how to make proposals, and sales assistance services, including technical support and product supply. (June 23, 1999)

Fujitsu Ltd and **Siemens AG** have agreed to link their global computer businesses with the aim of becoming the world's third-largest computer vendor. The merger is a 50-50 tie-up that will start operations in October 1999 and aims for an annual turnover of more than Euro7.6bn (US\$7.3 bn) by 2000. (June 18, 1999)

IBM is exiting its semiconductor chip manufacturing JV with Japan's **Toshiba**. The Japanese company will buy IBM's stake in the venture, **Dominion Semiconductor**, for an undisclosed amount. Dominion Semiconductor currently produces four million 64-megabit DRAM (dynamic random access memory) chips per month, of which half go to each company. With IBM's withdrawal from the venture, the proportion of chips to go to IBM will slowly reduce. By the end of 2000, the total output from the plant will go to Toshiba, at which time the factory will be producing 6 million chips per month. (July 7, 1999)

Infoseek Corp of the US has announced that it will set up a wholly owned subsidiary in Japan and terminate the business tie-up with its Japanese Internet business partner, **Digital Garage Inc**, which provides search and directory services under the name of Infoseek. Former Digital Garage President Jyoichi Ito will be named as chairman and Takao Nakamura, former Digital Garage vice president, as president for the new company. (July 1, 1999)

NTT Data Corp and **NTT Mobile Communications Network Inc (NTT DoCoMo)** have announced an alliance to provide a service to connect mobile phones with the Internet. They are also acquiring Softbank Corp's 60% stake

in Mediabank Corp. The two companies will manage Mediabank as a JV, with NTT Data holding a 20% stake and NTT DoCoMo the remaining 80%. The name of Mediabank will be changed to Dream Net, the same name as the Internet connection service operated by Mediabank. (July 6, 1999)

Softbank Corp has partnered with **Seven-Eleven Japan Co Ltd**, **Tohan Co Ltd** and **Yahoo! Japan Corp** to set up a JV, **e-Shopping! Books Corp**, to sell books and other publications via the Internet, in a system that will allow customers to pick up their books at convenience stores. The service will start in November 1999. The new company's capital will be ¥200m (US\$1.75m). Softbank is taking a 50% stake, Seven-Eleven 30%, Tohan 10% and Yahoo! 10%. (June 9, 1999)

KOREA

Computer Associates (CA) and **Naray Mobile**, a leading paging service provider in Korea and a subsidiary of the **TriGem Group**, are setting up a 50-50 JV to develop products and services for the Korean IT Industry. The company will identify and evaluate local software products for integration with CA's enterprise management and information infrastructure solutions, and leverage CA's worldwide sales channels to offer these products on a global basis. (June 3, 1999)

Daewoo Telecom Co will sell its phone-switching equipment manufacturing business to US-based **Lavas Investment Inc** for Won400bn (US\$338m). Daewoo Telecom had previously negotiated with **Newbridge Capital** to sell the phone-switching unit. Lavas Investment, however, won the business by offering a higher price. (July 2, 1999)

Samsung Electronics Co Ltd, **Samsung Display Devices Co Ltd**, **Samsung Electro-Mechanics Co Ltd** and **Samsung Corning Co Ltd** are planning to establish an integrated

manufacturing system to enhance their productivity. Under this supply chain management (SCM) project, the four companies will integrate their manufacturing processes, from glass making to electronics parts production and final assembly for TV tubes and computer monitors. The project is expected to be completed by November 1999 and would accelerate production and lower logistics costs. (June 21, 1999)

MALAYSIA

Pos Malaysia Bhd, the Malaysian postal service, **MIMOS Bhd**, the Malaysian Government's R&D corporation, and **Jaring**, operator of the nation's largest Internet access provider, have joined to launch **Digicert Sdn Bhd**, Malaysia's first licensed certification authority. The JV will issue and authenticate the digital certificates which will identify and certify the identity of individuals and organizations involved in electronic transactions. Pos Malaysia said that by the end of 1999, 14 general post offices in Malaysia would be able to sell the digital certificates over the counter. (July 4, 1999)

PHILIPPINES

Mitsubishi Corp of Japan has signed a US\$12m contract to install cables, terminals and fiber optic materials for the Philippines' **Globe Telecom**. The facilities are essential for Globe to roll out an additional 89,000 telephone lines in the capital, two provinces south of Manila and some regions in the main southern island of Mindanao. (July 5, 1999)

SINGAPORE

BizTone, a Malaysian enterprise resource planning

(ERP) provider, has launched an ERP service over SingaporeONE, the country's nationwide broadband network. The service, **BizTone.net**, allows businesses in Singapore and the region to access and conduct end-to-end sales, marketing, and procurement. Users are charged on a pay-per-transaction basis when using BizTone.net. Companies with multiple branch operations outside Singapore can access the same database updated automatically and instantaneously. (July 9, 1999)

GE Information Services and **Singapore Computer Systems (SCS)** have launched a JV, **EC1 Pte Ltd**, to provide e-commerce solutions. SCS holds 81% and GE Information Systems 19% in EC1. The partners are expected to move to 50% ownership each, over the next few years. (July 6, 1999)

The **WyWy Group** has announced a partnership with **National Computer Systems (NCS)** to tap into e-commerce opportunities in Singapore and the region. Both parties hope to support each other in areas they are lacking. NCS will help WyWy become e-commerce savvy, while WyWy will provide NCS with sales and marketing for NCS' e-commerce solutions. Projects in discussion include the development and deployment of Internet-based "shop bots" or software agents for users to search and do product comparison on the Internet. Both companies might also set up a joint venture to address the needs of the consumer and business markets in Singapore and the region. They are looking for other partners to join them. (July 8, 1999)

TAIWAN

Advanced Semiconductor Engineering (ASE), Taiwan's largest independent semiconductor packaging company, has announced its acquisition of two semiconductor assembly plants from US electronics giant **Motorola** for a total of US\$367m. ASE will take over Motorola's integrated circuits

(IC) assembly and testing plant in Taiwan's northern Chungli city and a facility in Paju, South Korea. The two plants will continue providing IC assembly and testing services to Motorola after the acquisition. ASE will hold 70% stake in the plants, with the remaining 30% to be held by its offshoot **ASE Test**. The acquisition is expected to increase ASE's revenues by US\$300m in the next 12 months. (July 5, 1999)

Chung Hwa Picture Tubes Ltd, Taiwanese CRT manufacturer, has begun mass producing TFT-LCDs in the second quarter of 1999 to tap the fast-growing market for TFT-LCD panels. Its output of 15-inch panels totaled 5,000 units in May and is targeting its monthly output at 25,000 units in the fourth quarter of this year. Japan's **Mitsubishi Corp** is the technology provider for Chung Hwa Picture Tubes' TFT-LCD panel production. Part of the company's TFT-LCD panel output supplies the demand of Mitsubishi. (June 11, 1999)

Mosel Vitec Inc, the Taiwanese chip-maker, intends to team up with **Siemens AG** of Germany to build the world's first 12-inch microchip wafer plant in Taiwan. The US\$1.5bn JV is expected to begin production in 2002. (July 5, 1999)

Taiwan's **Ritek**, the leading producer of CD-Rs, and **Philips Electronics** of the Netherlands have announced a Euro13m (US\$13.3m) JV to develop and produce memory discs as part of a strategic alliance that marks new co-operation between the two companies over access to key technologies. (July 9, 1999)

it easier and cheaper for investors to trade stocks online. Companies ranging from established local and western securities houses to US online pioneers such as E*Trade and Charles Schwab are also gearing up in Asia.

Online trading is also likely to bring big changes to Asia's financial industries. By reducing the cost and risk of introducing new investment products, it boosts liquidity in Asian bourses, helping the region's economic turnaround. Web-based trading also will force Asia's capital markets to become more transparent as investors start demanding the abundant research and stringent disclosure standards of US markets. While just a tiny portion of market activity, Internet trading already is starting to shake up the brokerage industry. Investors can now bypass the local brokerages that previously controlled the region's stock exchanges.

Western players are already moving in to take a piece of the Asian market. **E*Trade** has partnered with **Softbank** to launch E*Trade in Japan and plans to enter South Korea later this year and Hong Kong and Southeast Asia by early 2000. **Charles Schwab** already offers Hong Kong customers access to US markets and wants to add Hong Kong stocks. Interactivebrokers.com, a subsidiary of Greenwich-based Timber Hill Group, is rolling out online futures and options products in Hong Kong.

Our research shows that the different countries in Asia are displaying disparate climates for online stock trading:

In **Hong Kong**, upstarts are offering online services. A system that allows direct connections from the Internet to the exchange is expected to be implemented by 2000.

In **Singapore**, mandatory minimum commissions prevent online brokers from offering discounts. However, minimums will be fully phased out in 2003.

In **South Korea**, fiercely competitive brokers are already offering 60% discounts on fees. Volume of online trades in April was US\$9.2bn, more than all of 1993.

In **Taiwan**, online trading services are permitted only

FOCUS:

Online Stock Trading in Asia

Online stock trading in Asia is booming as in the US. There are several indications that this sector is poised to grow significantly in the near future. Governments across the region are changing securities laws to make

since 1998 and limited to local stocks. Currently, daily volume is estimated at US\$40m. More than 30 Taiwanese securities companies are already offering Internet trading to investors. Many online brokers have retained the traditional fees, choosing instead to promote instead the convenience and speed of online trading. Taiwan's trading fees are already among the lowest in the world, and therefore it is expected that the players would avoid price wars. Currently there are more than 60,000 on-line trading accounts in Taiwan. The Board of Securities and Futures predicts that there will be 600,000 accounts by the end of 2000.

The following are some of the more prominent Asian players in online stock trading:

Boom.com (Hong Kong)

Boom.com, founded in 1997, is Asia's first internet-accessible retail securities broker. Through Boom Securities (Hong Kong) Limited, a wholly owned subsidiary, clients can conveniently buy and sell securities listed in Hong Kong and the US, as well as Hong Kong qualified Mutual Funds. Access to additional stock markets in Asia is under development. Boom Securities is licensed and registered with the Securities and Futures Commission (SFC) of Hong Kong. It is the first SFC registered securities firm in the Special Administrative region to provide trading of Hong Kong and US listed shares, as well as HK qualified Mutual Funds via Internet. Boom.com also offers its visitors free information services and an online trading game.

Daishin Securities (South Korea)

Daishin Securities is the flagship company of the Daishin Financial Group, a network of service providers engaged in insurance, investment trust, factoring and other related activities. Daishin provides online trading of Korean stocks through its virtual private network - Cybos2000 system. Currently, only a Korean version is available. The company, established in 1962, has evolved into a strong financial services provider in Korea, and aims to become a full investment bank by diversifying its business portfolio. As of the end of 1998, Daishin's Internet trading system was trading over US\$1bn per month, with daily

hits reaching nearly 16,000. This is a record level of on-line trading and represents 34.5% of all on-line trading in Korea during 1998.

Dashin Securities (Taiwan)

Dashin Securities is the first in Taiwan to launch online Internet trading services in 1997, and claims to hold the largest market share for the country's online trading volume today. The Dashin web site allows accurate, confidential and secured transactions on the Taiwan Stock Exchange. It also provides order taking 24 hours a day, real-time quotes, account management, market analysis reports, latest news, and a comprehensive data bank. Dashin Securities has around 9,000 customers and NT\$2.1bn (US\$62m) in monthly transactions as of October 1998.

Kong Cheng Securities (Taiwan)

Kong Cheng Securities Corp entered the online trading scene in June 1998, with its Kong Cheng Electronic Trading web site. It is now the largest online broker in Taiwan, commanding a market share of about 35% (as of end of 1998). Daily transaction volumes are estimated at NT\$110m (US\$3.2m). Its popularity is largely the result of a massive advertising campaign in 1998. The business is not profitable, however, mainly due to the huge amounts of money spent on advertising. In addition to Internet trading, Kong Cheng has launched its new service, Touch-tone Automatic Trading System, where clients still can place an order when he/she is away from the computer. There is also a fax-back service - investors can obtain a variety of real-time graphs through the fax machine. Kong Cheng is currently negotiating with strategic partners to enhance the web site, especially to provide information services to investors. It is also working towards providing its clients the ability to invest in stocks internationally as well as other financial products such as mutual funds, bonds and IPOs. The Kong Cheng Electronic Trading web site is run by Kong Cheng Securities, one of the 14 earliest established securities companies in Taiwan. The Group's services include underwriting, proprietary trading, fixed income products, and securities brokerage and registration. It also plans to develop international related business covering futures and foreign stock investment in the near future.

POEMS (Singapore)

POEMS, developed by Phillips Securities, is Singapore's first online trading system. POEMS currently allows trades on Singapore Stock Exchange (SES) and Kuala Lumpur Stock Exchange (KLSE). The product was first introduced using an intranet system, where its users dial up to the POEMS network. POEMS today provides, in addition to the intranet system, trading via the Internet as well as via Telebroker, an automated phone service. Incorporated into POEMS is an information service called Dataline, which provides access to in-depth fundamental analysis such as PE ratio, NTA, balance sheet summary, profit & loss statement for last 5 financial years and research analysis on all listed companies in Singapore. POEMS is a product by The Phillip Group. The Group was established in 1975 and today consists of 17 main operating entities, employing more than 1000 people located in 8 countries: Singapore, Malaysia, Thailand, Hong Kong, Indonesia, Sri Lanka, United Kingdom and Australia. The Group provides a comprehensive range of products and services to meet every investment and financial needs, covering instruments such as stocks, bonds, commodities, foreign exchange, financial futures, real estate, insurance and unit trusts.

UAC Stock Exchange On-Line Co Ltd (China)

UAC is the first and only nationwide online trading network in China. UAC 162 Network is a private, virtual, secure communication and computer network system connecting investors to brokerage firms around the country. UAC162 Network runs on CHINAPAC, an intranet of packet switched data network owned by China Telecom. Hua Xia Securities, the second-largest brokerage firm in China, has signed an agreement to install the UAC system in all of its 98 offices nationwide. As the first and only CHINAPAC operating agent designated by China Telecom, UAC is in a unique position to market UAC 162 Network to all brokerage firms in China. At present, there are 4,000 brokerage offices in China serving 40m investors. UAC's total revenues, excluding the TV set-top box users segment, is projected to exceed US\$40 Million by 2004, producing an annual net earnings of US\$18m.

The above is only a selection of information available. If you would like to discuss further opportunities in online brokerages in Asia, please contact BDA in either New York or Singapore.

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ABOUT BDA

Business Development Asia is a corporate finance advisory firm which assists US companies in expanding their businesses in Asia. BDA helps clients to find local business partners and acquisition opportunities 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 or Charles Maynard in New York, or Andrew Huntley in Singapore.

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