

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

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CONTENTS

INTRODUCTION	1
CHINA/HONG KONG	1
INDIA	2
INDONESIA	2
JAPAN	2
KOREA	3
MALAYSIA	4
PHILIPPINES	4
SINGAPORE	4
TAIWAN	4
FOCUS: China Internet	5

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. In this issue we take a look at the Internet market in China and profile a few Chinese content providers.

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

China/Hong Kong

America Online (AOL) has launched a localized version of its online service in Hong Kong, almost two years since it first announced plans to launch such a venture. **AOL Hong Kong**, which is AOL's first Chinese language service, is being launched in the SAR (special administrative region) with local partners **China.com** and its sister-company **China Internet Corp.** AOL holds 8.0% stake in China.com, which is charged with procuring local content for the service. (September 28, 1999)

Ericsson has signed a US\$15m contract for expansion of **China Unicom's** GSM network in Jilin province. China Unicom will increase capacity in the province to 200,000 subscribers. The infrastructure will be provided by the Ericsson JV, **Beijing Ericsson Mobile Communications Company.** Including this contract, Ericsson has signed over US\$120m worth of contracts with China Unicom during 1999. China Unicom is the second largest cellular operator in China, and the only fully licensed service provider in the country. (September 7, 1999)

Legend Information Electronic Corporation and **Changtong Feihua Information Technology Co Ltd** have established a palm-top computer network portal. It is the first Chinese CE website. Inputting key words, users can quickly find related web sites. In addition, palm-top computer users can enjoy a free news service that uses a scanner

to enter newspapers into the web site. (August 21, 1999)

Linkage Online, a Hong Kong ISP and a subsidiary of global ISP **PSINet**, has joined the bidding for Local Wireless and External Fixed Telecommunication Network Services (FTNS) licenses. Linkage plans to build and operate a submarine cable system and satellite ground station-based facilities, offering both fixed and broadband wireless FTNS network services. The submarine cable system will deliver a 320 gigabits per second (Gbps) capacity connecting Hong Kong to Japan and onwards to the US. The broadband LMDS and point-to-point microwave technology proposed as part of the company's Wireless FTNS license will provide the high capacity network access. (October 4, 1999)

Powerlan, an Australian IT company, has acquired the Hong Kong based **CSSL Group**. The combined firm will offer IT and telecommunications system integration, as well as providing multivendor computing solutions, professional services and e-business solutions in the Asia Pacific region. The CSSL Group will commence co-branding with Powerlan. The combined company has 17 offices across seven countries in the Asia Pacific region and forecasts revenue of approximately US\$105 m for year 2000. (October 4, 1999)

India

India has indicated that online stock trading will become a reality in India soon. Brokers are already putting key infrastructure in place, and India is expected to kick off trading on the web by April 2000. Individual broking houses are already spending up to Rup25m (US\$0.59m) each to set up self-servicing kiosks with free access to news, stock quotes, market commentary, computers, Internet facilities and telephony services. India is also expected to announce a comprehensive IT policy, including cyber laws relating to tax, in the coming parliament.

(September 23, 1999)

The **Foreign Investment Promotion Board (FIPB)** of India has permitted **Russian Space Agency** to pick up 45% stake in a venture with India's **Orbitel Communications Ltd.** The JV will provide Internet services in the country. The FIPB has also permitted **KPN Telecom** of the Netherlands to hold a 45% stake in a new JV with local software company, **Wipro Ltd.** The JV, **Wipronet**, would provide Internet-based services. (September 20, 1999)

NIIT, the Indian computer software company, plans to invest up to US\$100m in the US information technology sector. The company is looking at either alliances or acquisitions or other investment opportunities. NIIT also announced a tie-up with US-based company **Computer Associates** to launch training programmes for domestic computer software professionals. (September 7, 1999)

Japan

Acom Co Ltd, a leading Japanese consumer finance company, and **Softbank Finance Corp**, the financing company in the **Softbank Group**, announced that they will jointly establish **E*NetCard Co Ltd** in October. The company will market loans and credit cards through its Web site. Applications filed through the site will be transferred to Acom, which will then examine the applications and extend loans to applicants. The new company will be capitalized at ¥300m (US\$2.75m), with 51% to be owned by Acom and 49% by Softbank Finance. (September 7, 1999)

eBay Inc, the Internet auction company, will start to offer a Japanese-language service in October. eBay is negotiating with a financial firm to realize person-to-person trade settlement by credit. If this transaction method is put into practice, it will be the first attempt in Japan to introduce person-to-person settlement by credit. And if the new transaction

method is established by eBay, it will possibly pave the way for other businesses to use it in their transactions other than individual auction trade. (September 24, 1999)

interQ Inc, an ISP in Japan, **UnitedDigital Inc**, an Internet business planning company, and **Net IRD Inc**, an Internet service provider for corporations, have co-established **Magclick Inc**, which will take orders for advertisements running on e-mail magazines that are distributed from a Web site called *MAGMAG*. About 1,000 kinds of e-mail magazines with 20 million volumes a month are distributed from "MAGMAG." InterQ and UnitedDigital have an equal 40% stake in the firm, and the remaining 20% is from Net IRD. (September 17, 1999)

Fujitsu Hitachi Plasma Display Ltd (FHP) has started small-scale production of plasma display panels using the alternate lighting of surfaces (ALIS) method developed in 1998 by **Fujitsu Ltd**. It will start full-scale production in October. FHP is a JV to develop PDPs established by Fujitsu and Hitachi in April 1999. Its subsidiary, FHP Kyushu in Miyazaki prefecture, will mass produce the PDP. FHP Kyushu currently has a capacity for producing 10,000 panels per month, and FHP plans to enhance its capacity to 70,000 panels per month by fiscal 2001. (September 17, 1999)

Matsushita Electric Industrial Co Ltd has established **Panasonic Digital NetworkServe Inc (PDN)**, which will provide business support services such as content planning and production targeting the end of 2000, at which time broadcast satellite digital data broadcasting is expected to be launched in the country. PDN's target clients are broadcasting companies, telecom carriers and content producers. Services will feature systems for content production; systems that simultaneously distribute the content to TVs, PCs, and mobile terminals; and a management service on customer data collected through providing the two-way services. All of these will take advantage of Matsushita Electric's digital technologies. Matsushita funded all of PDN's capital of ¥400m (US\$3.6m).

The initial staff will mainly be transferred from **Panasonic Wondertainment Inc** and **Panasonic Visuals Inc**. (September 1, 1999)

NEC Corp, the Japanese electronics and computer giant, has announced a ¥100bn (US\$935m) restructuring effort to position the company to focus on Internet businesses. The company will now focus in its three business units: **NEC Solutions**, selling Internet solutions to corporations and individuals; **NEC Networks**, providing Internet solutions to network operators; **NEC Electronic Devices**, focusing on equipment for the Internet industry. NEC declared that it will put every resource into its Internet operations, with its **Biglobe** ISP serving as the driving force. (September 30, 1999)

Malaysia

Asia Travel Network (ATN), a Malaysian company founded in 1997, has launched its online travel reservation web site, **AsiaTravelMart.com**. The web site offers a one-stop online travel shop for car rentals, hotels, tour packages, transfers and so on. The company is working with **China.com** and **Taiwan.com** to launch the Chinese versions of the site, and there are plans to translate the contents into Japanese and Korean as well. (September 1, 1999)

Malaysian Electronic Payment System (MEPS) Sdn Bhd has introduced a new inter-sector electronic purse (e-purse) scheme called MEPS CASH to facilitate payments in Malaysia. MEPS CASH is the second application developed by the local consortium as part of the national Multi-Purpose Card (MPC) under the Multimedia Super Corridor (MSC) initiative. Earlier this year, MEPS had launched the SET (Secured Electronic Transaction) Payment Gateway system to allow borderless marketing. The e-Purse is a stored value smartcard that incorporates a chip capable of controlling access to data. MEPS has so far invested

about RM30m (US\$7.9m) for developing the e-Purse and Multi-Purpose Card projects. (September 24, 1999)

Philippines

Globe Telecom, one of the largest telecommunications players in the Philippines, recently announced that it has entered a partnership agreement with **CNN Interactive** for the provision of information-on-demand for Globe's local subscribers. **CNN Mobile**, the information-on-demand news service from CNN Interactive, which is the Internet broadcasting arm of news provider CNN, will now be available for Globe's subscribers with short message system (SMS) or "texting" capabilities. The partnership will allow subscribers to have access to world and regional news, weather forecasts, world business, sports, entertainment, and travel. (September 24, 1999)

Net2Phone has signed a major deal with **Smart Communications** of the Philippines, allowing the Filipino cellular carrier to start offering Net telephony services to its customers. The deal between Net2Phone and Smart will allow the cellular carrier to install a Net2Phone gateway in the Philippines. In addition to the voice Internet telephony services, Smart will also support the Net2Phone PC-to-fax service to anywhere in the world. The deal will eventually allow **Philippine Long Distance Telephone (PLDT)** to offer phone-to-phone and PC-to-phone Internet telephony services to its landline customers, since Smart has been acquired by PLDT. (September 7, 1999)

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Singapore

National Computer Systems (NCS), a wholly owned subsidiary of the **Singapore Telecom Group (SingTel)**, has announced that it will sell 25% of its stake in e-commerce portal **Sesami.com** to **Overseas Union Bank (OUB)**. Sesami.com was launched by NCS on September 1, 1999 to run a B2B procurement portal. To date, NCS has pledged S\$45m (US\$26.5m) over five years to develop the e-procurement portal. OUB will be the preferred payment and settlement gateway for transactions conducted on the online marketplace. (September 16, 1999)

SembCorp Industries Ltd has announced its intention to sell its entire 42% stake in **Pacific Internet Ltd (PI)**, an ISP listed on the Nasdaq. The sale offer comes amid increasing competition in Singapore's Internet industry following the removal of a 49% foreign ownership limit on ISPs and Internet exchange service providers in the city-state. PI is the only Asian service provider that has a regional presence in Singapore, Hong Kong, the Philippines and Australia. (September 23, 1999)

South Korea

AT&T Korea is set to make its foray into the Korean communication service market, after its recent acquisition of **IBM Korea's Global Networking Division**. AT&T Korea intends to launch network services, including virtual private network (VPN), frame relay and Internet access. (September 7, 1999)

Computer Associates (CA) will sign a Memorandum of Understanding with **Ssanyong Information & Communications Corp (Ssanyong IC)** in October for the acquisition of

the Korean systems integration company. CA said it has completed spot examinations of Ssangyong IC, and is currently negotiating the acquisition price. (September 21, 1999)

Kiyung Electronics Co Ltd, which manufactures digital satellite receivers, has sealed a license contract with US **OpenTV Inc**, a leader in interactive television software for digital receivers. Under the license agreements, the Korean firm will be able to produce digital set-top boxes using the OpenTV software platform by the end of this year. The US software firm is expected to make inroads into the Asian digital receiver market in partnership with the Korean firm. (August 13, 1999)

Orion Electric, a subsidiary of **Daewoo**, has independently developed an inner shield, a key component used to make CRTs. The company has been pushing to develop the product since June 1998. As of now, domestic CRT makers have been relying on imported inner shields to make CRTs. Through the development of the inner shields, which play a pivotal role in the resolution of CRTs, Orion Electric said it will be able to cut costs by W980m (US\$0.8m) per annum. (September 23, 1999)

Shinsegi Telecom, a South Korean mobile telephone network operator with more than three million subscribers, has licensed WAP (wireless application protocol) compatible equipment from **Phone.com** that will enable it to offer mobile Internet services to its users. Under the terms of the deal, Shinsegi is licensing the UP.Link gateway and enhanced services platform from Phone.com. The system will allow users of WAP compatible telephones to use Shinsegi's CDMA-based network to access Internet-based content and information services. (September 1, 1999)

Taiwan

Taiwan's **Chi Mei Optoelectronics Corp** has

disclosed its plan for production of thin-film transistor liquid-crystal display (TFT-LCD) panels. The company plans to start the operation of its first plant (FAB1) for producing TFT-LCD panels at the end of 1999. Then the company is to begin the construction of its second plant (FAB2), aiming to start operation in 2001. The company plans to produce 30,000 sheets per month. Construction of its third, fourth and fifth fabs is expected to begin in 2003, 2005 and 2007, respectively. (September 3, 1999)

Synnex Technology International Corp, the largest distributor of PCs and peripherals in Taiwan, has unveiled plans to invest in automatic warehousing facilities in Taichung, Kaohsiung, Australia and Thailand. The firm plans to invest NT\$3bn in the automatic warehousing systems to build the largest PC and peripherals distribution network in the Asia-Pacific region. (August 27, 1999)

TPV Holdings Ltd, the world's fourth largest maker of computer monitors, based in Taiwan, has launched its IPO on the Singapore and Hong Kong stock markets. TPV's primary listing will be in Hong Kong, with the secondary listing in Singapore. TPV manufactures, designs and sells monitors to over 30 countries. (September 27, 1999)

Thailand

KSC Commercial Internet, one of the most active local ISPs in Thailand, has announced the provision of a free home page for schools nationwide and the introduction of a portal Website for Thai schools. The company would provide schools with a free 10 MB home page space. The web sites will be developed by 300 **Assumption University (ABAC)** students studying at masters degree level on the university's computer and Internet courses. The program is part of KSC's project to develop a school-link portal which would feature local schools, as well as its attempt to broaden its

customer base into the educational institutions. (September 6, 1999)

Reuters has selected Bangkok as the location to set up a center of technical expertise for an Internet trading system covering the Asia Pacific region. The local office will provide technology expertise and support to other Reuters' centers in the region, assisting them in supplying online trading facilities to securities-brokerage customers. Reuters has also invested US\$2m in new office space in Bangkok for a state-of-the-art data center supporting subscribers in Thailand. (September 2, 1999)

FOCUS:

China Internet Market

The China Internet market has seen tremendous growth and is slated to become a global leader within the next five years. A latest report released by the China Internet Network Information Center (CNNIC) indicated that there are now 4 million Internet users in China. With a population of over 1.2 billion, and a forecast installed base of over 14 million PCs by year-end 1999, the China Internet market presents an exceptional opportunity. China is undoubtedly an attractive market which cannot be ignored. While recent press releases have warned that China will keep foreigners out of investment opportunities in the China Internet market, we speculate that it would ultimately be ISAP (Internet Access Service Provider) services that would be regulated, leaving content a free play in China.

Internet Access Service Providers (IASPs)

China's Internet is composed of four networks: ChinaNet, the primary commercial network run by the government; the GBNet, a much smaller commercial network owned by JiTong Corp; China Science and Technology Network (CSTNet), the country's high technology research network; and the China Educational and Research Network (CERNet) linking China's academic and learning institutions.

Additionally, a high bandwidth ATM-based China Multimedia Services Network is currently under development.

The two commercial, backbone Internet providers in China:

ChinaNet

ChinaNet, managed by the Beijing Telecommunications Agency, is China's first and largest commercial network, covering more than 230 cities in 31 provinces. ChinaNet's network backbone is now connected to the global Internet via at least 14 gateways for a total international bandwidth of 195MBps. Its bandwidth was significantly expanded with the March 1999 opening of an AT&T 45MBps underwater cable from Shanghai to the US. Note also that ChinaNet is one of the only two networks in China which have its own Internet backbone and can provide full Internet services to the public throughout China (the other is GBNet, see below). As such, other ISPs rely on ChinaNet for its backbone access.

Golden Bridge Network (GBNet)

GBNet is the only licensed competitor to ChinaNet and is owned by JiTong Corp, a subsidiary of MEI. It currently maintains nodes in only a few locations, including Beijing, Dalian, Guangzhou, Shanghai and Shenzhen. GBNet expects to cover 100 cities in China by the end of 1999. Its international bandwidth pales in comparison to ChinaNet - it currently has two gateways in Beijing totalling 18MBps.

Here are some of the higher profile Chinese content providers:

Sina.com

Sina.com was formed in 1998 with the merger of SINANET.com of the US and Stone Rich Sight Information Technology Company (SRS). Sina.com, which is headquartered in California, has offices in Beijing, Hong Kong and Taiwan. It operates the world's largest Chinese-language destination site. The company offers a network of branded content and services in English, GB Chinese and BIG5 Chinese. The Sina.com global network includes unique sites for China, Hong Kong, Taiwan, North America and planned sites for other Chinese population centers around the world. Sina.com claims 200 million pageviews per month and one million registered users.

Netease.com

Netease, also known as 163.com, was founded in 1997 and has since grown into a leading Chinese language portal. Netease offers features such as community (discussions, etc.); "My Netease", the equivalent of "My Yahoo!" homepage customization service; free email accounts; content specific newsletters; free subdomain names; and more. Netease claims over 100 million pageviews per month. The company is reportedly looking for partners and is planning a NASDAQ listing.

Sohu.com

Sohu (literally "Search Wolf") is the first major Chinese-language search engine and directory, developed by Internet Technologies China (ITC), a Beijing-based Internet startup backed by MIT professors and scholars. The directory classification system is supposedly designed to match the particular cultural tendencies of the Chinese users. In addition to the search service, Sohu.com also provides special content channels, free email, discussion boards, etc. Sohu.com

currently claims over 60 million pageviews per month.

China.com

China.com is an integrated Internet services company focusing on the Greater China market. In addition to its web portal service, it also provides online advertising solutions through 24/7 Media Asia. China.com has strong financial and technological support from its shareholders and partners: AOL, 24/7 Media, Sun Microsystems, Bay Networks, Mitsui & Co, Bechtel Organization, New World Infrastructure and Xinhua News Agency. It is interesting to note, however, that despite its prominent URL, China.com is not yet a popular destination compared to sina.com and netease.com.

The above is only a selection of information available. If you would like to discuss further opportunities in the Internet market in China, 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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