

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

# ASIAN TECHNOLOGY NEWSLETTER

ISSUE 16, December 1999

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

## CONTENTS

INTRODUCTION .....	1
CHINA/HONG KONG .....	1
INDIA .....	2
INDONESIA .....	3
JAPAN .....	3
KOREA .....	3
MALAYSIA .....	4
PHILIPPINES .....	4
SINGAPORE .....	4
TAIWAN .....	5
THAILAND .....	5
VIETNAM .....	5
FOCUS: Asian online advertising .....	5

## INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative. In this issue we explore the online advertising sector in Asia and profile some of the leading local players.

BDA is a corporate finance advisory firm which assists multinational clients to identify and execute acquisitions and JVs in Asia. 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/HK

**Cable & Wireless HKT (CWHKT)** and **Star TV** have combined Star's pay TV plans with CWHKT's Internet operations into a new company which they intend to take public. The service will integrate pay TV and Internet access as well as online shopping, video-on-demand, and other broadband features, and will be delivered to homes by a combination of satellite and CWHKT's broadband ADSL network. The company will initially be 60% owned by CWHKT and 40% by Star. (November 10, 1999)

**Cable & Wireless HKT** in partnership with **Microsoft** has launched a multimedia broadband portal, called **iZene**. iZene provides movies, radio, news, music and games as well as video email and discussion forums. The two firms formed a partnership in June 1999 to build a broadband portal. Users will be charged HK\$30 per month to use iZene. The portal seeks to earn most of its revenue through ecommerce and advertising. (November 1, 1999)

**China.com Corp** has reported US\$5.2m in revenues for Q3 1999, a 455% increase year-on-year and a 117% increase on Q2 1999. The company's network of greater China portals, China.com, Hongkong.com, and Taiwan.com, recorded an average of 2.5 million daily page views in Q3 1999, a 150% increase on Q2 1999. Registered users grew 88% to over 750,000. (November 4, 1999)

**China.com Corp** has acquired a 60% stake in **Clic Inc**, a Korean website design firm, for US\$1.4m. Clic

has designed sites for nearly 80 Korean corporations, including **Samsung Electronics** and **SK Telecom**. (November 3, 1999)

**Hutchison Whampoa Ltd** and **Global Crossing Ltd** have formed a 50/50 JV, **Hutchison Global Crossing**. The US\$1.2bn JV will develop fixed-line telecom and Internet business in China and Hong Kong. Hutchison's existing fixed-line fiberoptic network in Hong Kong will also be linked with Global Crossing's international undersea fiberoptic cable network. (November 14, 1999)

**International Data Group (IDG)** of the US has been investing much of its US\$100m fund into China Internet sites. IDG has invested in 25 web sites in China, most of which emphasize ecommerce. The sites include **8848.net**, which sells consumer electronics and other goods, and **Dangdang.com**, an online bookstore. Both sites are considering overseas listings next year. (November 10, 1999)

**Juniper Networks Inc**, a US-based producer of Internet backbone routers, is opening an Asia Pacific headquarters in Hong Kong. Juniper already has an office in Japan. The new location will allow Juniper to offer products in Hong Kong, China, Taiwan, Korea, Singapore, Malaysia, the Philippines, Australia and New Zealand. The company plans to open an office in Beijing in early 2000. (November 12, 1999)

**Nortel Networks** of Canada has won a contract from the **Chongqing Post and Telecommunications Administration (PTA)** to build a 10gbps optical network. The network will have capacity to carry as many as 130,000 voice calls or 192 television channels simultaneously. This will be the second 10gbps network in China. Nortel Networks had set up the first in July 1999, connecting Shanghai and Nanjing. (November 5, 1999)

**Outblaze**, the Hong Kong based messaging solutions provider, has reportedly received an offer from a US firm to acquire the company for US\$200m. Outblaze's investors include China Rich Holdings, Hikari Tsushin and Pacific Century Cyberworks. (December 2, 1999)

**Pacific Century CyberWorks** has paid US\$27m for a 8% stake in **City Telecom (CTI)**. CTI operates the second largest ISP and the second largest mobile phone service in Hong Kong and has recently listed ADRs on the NASDAQ. (November 4, 1999)

**Sina.com**, the privately owned greater China portal, has closed a US\$60m round of investment. Leading investors included **Dell Computer**, **Creative Technology Ltd**, **Pacific Century CyberWorks**, **Softbank**, **Sumitomo**, **Trend Micro** and **United Overseas Bank (UOB)** of Singapore. **Crosslink Technology Partners**, **Crystal Internet Venture Fund**, **Economic Development Board of Singapore**, **Goldman Sachs** and **Walden International Investment Group**, investors in the first round of financing, also took part in this round of financing. Sina.com is expected to list on NASDAQ in 2000. (November 9, 1999)

---

## INDIA

**BPL Telecom Business Group**, the Indian telecommunications major with the highest cellular subscription base, will launch an ISP service, **BPLNet.com**, in a month's time. The service will initially be launched in 11 cities through gateways in Delhi, Bangalore and Mumbai. **BPLNet.com** will also offer content and design solutions to consumers. (November 9, 1999)

**Satyam Infoway Limited** has targeted regional ISPs and ICPs for acquisitions and started setting up an international gateway for Internet access in India. Satyam, subsidiary of Satyam Computer Services, recently listed ADSs on the NASDAQ in the US and will use the proceeds to develop its Internet presence. Satyam is the second largest Indian ISP in terms of subscription base with 80,000 subscribers. Major shareholders include Satyam Computer Services with a 59% stake, UK-based **CDC** with 17%, and US-based Internet technology company **Sterling Commerce** with 2%. (November 1, 1999)

**Tata Group** of India and **TD Waterhouse Group**, the online brokerage subsidiary of Canada's **Toronto-Dominion Bank**, have formed a JV to develop online trading in India. Waterhouse will hold a 49% stake and Tata will hold the majority stake. The JV will form a discount brokerage and offer online trading after Government approval. TD Waterhouse already offers service to customers in the US, Canada, Australia, Hong Kong, and the UK. (October 27, 1999)

**NTT Mobile Communications Network Inc (NTT DoCoMo)** and **Microsoft Corp** have formed a JV, **Mobimagic Co Ltd**, to offer wireless services in Japan. The US\$1.9bn JV will develop and market wireless data services to run on the NTT DoCoMo network. Services will initially include email access and intranet applications over NTT DoCoMo's circuit-switched Personal Handyphone System wireless network. Mobimagic will use Microsoft microbrowser technology and the Windows CE operating system. (November 4, 1999)

---

## INDONESIA

**MyWeb Inc.com** and Singapore's **L&M Group Investments** are forming a company to launch WebTV services in Indonesia in 2000. L&M will have a 90% stake in the JV and MyWeb the other 10%. (November 16, 1999)

**PT Jawa Pos**, the Indonesian media group, and **L&M Group Investments Ltd** will set up a 50/50 JV to develop Internet and ecommerce services. Jawa Pos owns 49 dailies, 6 magazines and 15 tabloid newspapers with a circulation over 2 million in Indonesia. It will bring its content online and provide Internet and ecommerce services. (November 11, 1999)

**NTT Communications (NTT)** has launched a new small transaction electronic commerce settlement service. The service will permit online content providers to charge as little as ¥1 (US\$0.01) per transaction. ICPs will be able to sell digital content via the Internet for small sums that would otherwise be impractical to charge using conventional credit card settlement of electronic accounts. NTT will use its **Calle** service to collect payments for participating digital content providers and charges will appear on the purchaser's next monthly telephone bill. There is no fee to the consumer and merchants will pay NTT an ¥8,000 (US\$75.50) monthly participation fee plus a 5% service commission on all revenues collected through the service. (October 28, 1999)

**Trans Cosmos**, a leading Japanese IT solutions provider, and **Nikko Securities**, have announced the establishment of a VC fund, **eVentures**, to make investments in Internet-related ventures in Japan. The initial fund will initially be US\$100m and will seek other partners. Trans Comos already runs a US-based Internet VC fund. (November 12, 1999)

---

## JAPAN

**Fujitsu** has merged its **InfoWeb** ISP with **Nifty-Serve**, an ISP operated by its wholly owned **Nifty Corp** subsidiary. The newly created **@nifty** ranks as Japan's largest ISP, ahead of **NEC's Biglobe** (2.7 million members) and the third largest globally (behind **AOL** and **T-Online** of Germany). **@nifty** plans to offer an i-mode cellular phone notice board service and a mobile fitter conversion service that will enable standard web pages to be displayed on mobile terminals such as cellular phones or palm-size computers. (November 5, 1999)

---

## KOREA

**asiacontent.com** has acquired **Kinopia**, the Korean online advertising company. Through **asiacontent.com**, Kinopia will expand its Internet advertising services into the region. Kinopia was formed in January 1995. It provides online advertising services for companies like Samsung Electro-Mechanics, Hyundai Marine &

Fire Insurance, LG-Caltex Oil, and Cathay Pacific Airways. (October 28, 1999)

**Dacom** has launched a B2B ecommerce portal service, **BizClick**. BizClick offers solutions for the whole ecommerce transaction process. Payment is to be settled through a purchasing card that will be issued by **Visa Korea**. By providing corporate members with the B2B ecommerce service, Dacom will charge 2% commission on sales. (November 9, 1999)

**E\*Trade**, **Softbank** and **LG Investment Securities** have formed a JV to create an online brokerage for the Korean market. Softbank will be the leading shareholder with a 40% stake, with the remaining ownership shared by LG (15%), E\*Trade (10%) and other Korean shareholders (35%). The online brokerage firm should begin operating in Q1 2000. The Korean online trading sector has accounted for more than 30% of the total turnover (about US\$42.5bn) in the market since September. Online trading also accounted for over 30% of volume. (November 3, 1999)

---

## MALAYSIA

**Catcha.com**, a Singapore based SE Asian portal, has announced plans to apply for MSC (Multimedia Super Corridor) status and a listing on one of the regional stock exchanges and Nasdaq. Catcha.com has unique sites catering to the Indonesian, Malaysian and Singaporean markets. It expects to roll out shortly in the Philippines and Thailand. Catcha.com has an average of 10 million page hits per month, growing at 50% per month. (November 6, 1999)

---

## PHILIPPINES

**AkAsia Services Corporation** has launched **PhilShop**, an e-shopping directory, including both

online shops and offline shops. Listing in PhilShop is free and ranking on the directory is based on hits and ratings submitted by visitors to the site themselves. AkAsia also provides online auctions and classified ads at its sites Panalo.com and PhilAuctions.com. (November 3, 1999)

---

## SINGAPORE

**Singapore Technologies Telemedia Pte Ltd (ST)**, **Sun Microsystems** and **America Online** are joining efforts to provide Internet portal solutions in Asia. ST will use the US alliance's software to build, host and operate Internet portals. ST is a leading telecommunications and media company and a key arm of government-linked giant **Singapore Technologies Group**. (November 4, 1999)

**Singapore Telecom** and Japan's **KDD** are forming a 50/50 JV to provide data communication services in the region. The US\$350m JV will initially offer data communications using ATM and Frame Relay, and corporate telephony using Voice over IP. The initial network will span Singapore, Japan and Hong Kong and will later be extended to ASEAN, Taiwan, Korea, the US and Europe. (December 1, 1999)

**ThatWeb.Com**, a subsidiary of **Aztech Systems** has set up a software development center in Shanghai. ThatWeb.Com is a one stop messaging portal that offers e-postcards, instant messaging, web based address book, voice over IP services, as well as email retrieval from any POP3 email address. The Shanghai R&D center will facilitate the company's penetration of the mainland China market. (December 1, 1999)

---

To submit stories for future editions of this newsletter please contact Sunny Hong in Singapore on (65) 533-8500 or shong@bdallc.com.
---

## TAIWAN

**GigaMedia Ltd**, a broadband cable Internet access provider in Taiwan, and **Microsoft** have announced a partnership to offer broadband Internet access to Taiwan. The two companies will develop a new MSN portal specifically for broadband users in Taiwan and Microsoft will invest in GigaMedia. The size of the investment was not disclosed. (November 15, 1999)

The **Taiwan Stock Exchange** announced that at the end of Q3 1999, there were 388,000 Taiwan residents trading online, a 22% month-on-month increase. Online trading accounted for 2.33% of total market turnover in September 1999. The three leading local online brokerages, **Polaris Securities**, **Kongcheng** and **Capital Securities**, account for over 45% of all online trading volume and the top 15 firms account for 90% of all volume. (November 4, 1999)

---

## THAILAND

**Jasmine International Plc**, the Thai subsidiary of **Jasmine Plc**, the UK construction and telcom group, has established an ISP in Thailand, **Jasmine Internet (Thailand) Co Ltd**. The ISP service will trade under the **Ji Net** brand name. Jasmine International invested Bht30m (US\$0.8m) into **Info Access**, a faltering ISP, and changed the name to Jasmine Internet. (November 10, 1999)

---

## VIETNAM

According to the **Vietnam Government**, there are 35,800 online subscribers in Vietnam, 50% of which are foreigners and 40% are businesses. High subscription fees have discouraged adoption by more users. An average subscription cost US\$22 a month. The average yearly income in Vietnam is US\$300. There are four ISPs in the country, three of which

are government owned and together control 96% of subscribers. (November 3, 1999)

---

## FOCUS:

### Asian online advertising

#### Introduction

Advertising revenues remain the driver behind most Internet portals' business models. As such it is important to understand the sector in Asia and to be able to draw comparisons to the more advanced US market, as clues to the way online advertising will mature in Asia.

We expect the online advertising sector in Asia, presently about two to three years behind the US, to grow rapidly in the next three years. In Asia, online advertising commands less than 1% of the total advertising market in 1998. Nevertheless, we expect that by 2003, Asia will equal the US in terms of percentage of total advertising dollars spent online, at 5% of the total advertising market. This compares with more optimistic analysts who expect the market share to reach 5% earlier.

#### Broadband/wireless

Broadband and wireless access will accelerate the growth of the Internet tremendously in Asia and, with it, the online advertising industry. It is worth noting, however, that each mode of access is best suited to particular advertising models. Broadband will allow advertisers to microtarget and track surfers, with the ability to deliver interactive "intelligent" ads with high quality video and audio. Wireless access, likely to be rolled out mostly on mobile phones, palm top computers, and other hand-held devices, will not lend itself to bandwidth intensive advertising of the broadband platform.

#### Concentration

The average Internet user views less than 100 unique websites a month, of the hundreds of millions available. As a result, strong Internet brand names

attract the lion's share of advertising revenues. For example, **the top 10 sites in the US secure 75% of total advertising revenues.** The top 10 sites in Australia secure 77% of total advertising revenues. Asia is likely to develop in a similar way and advertising revenue will be a viable revenue model only for the leaders in any sector. We expect, however, that the market leaders will be pan-Asian, and that the Japanese, Korean and greater Chinese market will consolidate separately; each with unique local market leaders.

**The industry in Asia**

Advertising companies are in the process of educating potential customers to the benefits of online advertising. Across Asia [ex-Japan], US\$21.4bn was spent on advertising in 1998. **US\$10m, or 0.05% of the total, was devoted to online advertising.** Goldman Sachs expects the market to reach 5% penetration by 2001, valuing online advertising at US\$1.5bn in market revenues. We feel that this assumption is optimistic, as the US market is only expected to spend 5% of total advertising revenues online by 2001.

**Advertising spending across Asia**

US\$	1998 total spending	1998 online only	2003 online only
Australia	4.6bn	9.0m	300m
China	5.0bn	2.5m	330m
Hong Kong	2.7bn	3.0m	150m
India	1.4bn	1.5m	70m
Japan	31.6bn	95.0m	1.6bn
Korea	NA	10.0m	185m
Singapore	NA	3.0m	40m
Taiwan	NA	4.0m	30m

Source: IDG, BDA estimates

\* The 2003 figures assume that 5% of total advertising will be online.

**Global players in Asia**

The global reach of the larger players can allow the media buyer or advertiser to centralize media buying and planning while localizing their campaigns allowing multinational advertisers to more effectively target their customer markets both inside and outside of Asia.

**24/7 Media** was the first major US player to enter Asia, through its partnership with **China.com** subsidiary **24/7 Media Asia**. 24/7 Media Asia has offices in **Hong Kong** (Asia-Pacific headquarters), **Australia, China** (Shanghai), **Japan, Korea, Singapore, Taiwan** and **Thailand**.

**CMGI**, with its recent spate of online advertising acquisitions in the US, including **2Can Media, AdForce, ADSmart** and **Flycast**, is also gaining a presence in the region via these vehicles.

**DoubleClick** launched **DoubleClick Asia** in October 1999 with **operations in Taiwan, Singapore and Hong Kong**. DoubleClick Asia is a JV with **asiacontent.com**, a leading regional Internet company which invests in Asian Internet content, advertising and ecommerce companies and partners with foreign companies to localize their brands for the Asian markets. DoubleClick has established operations in **Australia** and **Japan**. **asiacontent.com's** recent acquisition of **Kinopia**, a Korean online advertising company, will further strengthen its ability to cater to the Asian advertising market.

**Local online advertising players in Asia**

**BMCMedia.com** – Australia based, BMCMedia.com was established in 1998 to service the growing needs of advertising in the online environment. It is now Australia's largest Internet advertising agency, with offices in Sydney, Melbourne and Adelaide, and has now established a presence in Singapore and Hong Kong. It also has a partnership with the United States' third largest online network, **Flycast** and other US based agencies, **Phase 2 Media**, and **Winstar**. BMCMedia.com has partnered with Singapore firm **Active Media** to provide customized advertising campaigns for clients via the Internet.

**DKIMS Communications** – a Korean online advertising company founded in 1995. It is currently the leading local player with W360m (US\$305,000) in monthly online ad revenues [average to June 1999]. The offline Korean advertising market has been dominated by the mammoth in-house advertising agencies of large conglomerates, though they have not been able to extend their dominance to the online sector. DKIMS' clients include **Korea Telecom (KT) Freetel, IBM Korea, Hyundai Electronics Industries, the Hansol Group, Samsung Securities** and **Daewoo Corp.** KT Freetel is the leading online advertiser in Korea.

**Kinopia**, recently acquired by **asiaccontent.com**, had average monthly revenues of W190m (US\$161,000) in the same period. **Drimone**, also a direct competitor in the online advertising sector, had revenues of W120m (US\$102,000). Large traditional agencies tied to the chaebols, such as **Cheil Communications** and **Daehong Communications**, recorded less than W50m in monthly online ad revenues.

**Space Asia Media** – an Internet advertising network. Space Asia provides Internet advertising solutions for advertisers with offices in Hong Kong and Singapore. It provides an outsourced ad sales solution and ad targeting and management technology.

---

Andrew Huntley, Technology team leader  
Sunny Hong, Technology team

Paul DiGiacomo, Technology team

---

### **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.

New York  
Business Development Asia LLC  
The Economist Building, Suite 405  
111 West 57th Street  
New York, NY 10019  
Tel: (212) 265-5300  
Fax: (212) 265-4300

Singapore  
Business Development Asia Utd Pte Ltd  
20 Raffles Place  
#10-07 Ocean Towers  
Singapore 048620  
Tel: (65) 533-8500  
Fax: (65) 533-8506

bda@bdallc.com  
www.bdallc.com

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

## ASIAN TECHNOLOGY NEWSLETTER

ISSUE 16, December 1999

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

### CONTENTS

INTRODUCTION .....	1
CHINA/HONG KONG .....	1
INDIA .....	2
INDONESIA .....	3
JAPAN .....	3
KOREA .....	3
MALAYSIA .....	4
PHILIPPINES .....	4
SINGAPORE .....	4
TAIWAN .....	5
THAILAND .....	5
VIETNAM .....	5
FOCUS: Asian online advertising .....	5

### INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative. In this issue we explore the online advertising sector in Asia and profile some of the leading local players.

BDA is a corporate finance advisory firm which assists multinational clients to identify and execute acquisitions and JVs in Asia. 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/HK

**Cable & Wireless HKT (CWHKT)** and **Star TV** have combined Star's pay TV plans with CWHKT's Internet operations into a new company which they intend to take public. The service will integrate pay TV and Internet access as well as online shopping, video-on-demand, and other broadband features, and will be delivered to homes by a combination of satellite and CWHKT's broadband ADSL network. The company will initially be 60% owned by CWHKT and 40% by Star. (November 10, 1999)

**Cable & Wireless HKT** in partnership with **Microsoft** has launched a multimedia broadband portal, called **iZene**. iZene provides movies, radio, news, music and games as well as video email and discussion forums. The two firms formed a partnership in June 1999 to build a broadband portal. Users will be charged HK\$30 per month to use iZene. The portal seeks to earn most of its revenue through ecommerce and advertising. (November 1, 1999)

**China.com Corp** has reported US\$5.2m in revenues for Q3 1999, a 455% increase year-on-year and a 117% increase on Q2 1999. The company's network of greater China portals, China.com, Hongkong.com, and Taiwan.com, recorded an average of 2.5 million daily page views in Q3 1999, a 150% increase on Q2 1999. Registered users grew 88% to over 750,000. (November 4, 1999)

**China.com Corp** has acquired a 60% stake in **Clic Inc**, a Korean website design firm, for US\$1.4m. Clic

has designed sites for nearly 80 Korean corporations, including **Samsung Electronics** and **SK Telecom**. (November 3, 1999)

**Hutchison Whampoa Ltd** and **Global Crossing Ltd** have formed a 50/50 JV, **Hutchison Global Crossing**. The US\$1.2bn JV will develop fixed-line telecom and Internet business in China and Hong Kong. Hutchison's existing fixed-line fiberoptic network in Hong Kong will also be linked with Global Crossing's international undersea fiberoptic cable network. (November 14, 1999)

**International Data Group (IDG)** of the US has been investing much of its US\$100m fund into China Internet sites. IDG has invested in 25 web sites in China, most of which emphasize ecommerce. The sites include **8848.net**, which sells consumer electronics and other goods, and **Dangdang.com**, an online bookstore. Both sites are considering overseas listings next year. (November 10, 1999)

**Juniper Networks Inc**, a US-based producer of Internet backbone routers, is opening an Asia Pacific headquarters in Hong Kong. Juniper already has an office in Japan. The new location will allow Juniper to offer products in Hong Kong, China, Taiwan, Korea, Singapore, Malaysia, the Philippines, Australia and New Zealand. The company plans to open an office in Beijing in early 2000. (November 12, 1999)

**Nortel Networks** of Canada has won a contract from the **Chongqing Post and Telecommunications Administration (PTA)** to build a 10gbps optical network. The network will have capacity to carry as many as 130,000 voice calls or 192 television channels simultaneously. This will be the second 10gbps network in China. Nortel Networks had set up the first in July 1999, connecting Shanghai and Nanjing. (November 5, 1999)

**Outblaze**, the Hong Kong based messaging solutions provider, has reportedly received an offer from a US firm to acquire the company for US\$200m. Outblaze's investors include China Rich Holdings, Hikari Tsushin and Pacific Century Cyberworks. (December 2, 1999)

**Pacific Century CyberWorks** has paid US\$27m for a 8% stake in **City Telecom (CTI)**. CTI operates the second largest ISP and the second largest mobile phone service in Hong Kong and has recently listed ADRs on the NASDAQ. (November 4, 1999)

**Sina.com**, the privately owned greater China portal, has closed a US\$60m round of investment. Leading investors included **Dell Computer**, **Creative Technology Ltd**, **Pacific Century CyberWorks**, **Softbank**, **Sumitomo**, **Trend Micro** and **United Overseas Bank (UOB)** of Singapore. **Crosslink Technology Partners**, **Crystal Internet Venture Fund**, **Economic Development Board of Singapore**, **Goldman Sachs** and **Walden International Investment Group**, investors in the first round of financing, also took part in this round of financing. Sina.com is expected to list on NASDAQ in 2000. (November 9, 1999)

---

## INDIA

**BPL Telecom Business Group**, the Indian telecommunications major with the highest cellular subscription base, will launch an ISP service, **BPLNet.com**, in a month's time. The service will initially be launched in 11 cities through gateways in Delhi, Bangalore and Mumbai. **BPLNet.com** will also offer content and design solutions to consumers. (November 9, 1999)

**Satyam Infoway Limited** has targeted regional ISPs and ICPs for acquisitions and started setting up an international gateway for Internet access in India. Satyam, subsidiary of Satyam Computer Services, recently listed ADSs on the NASDAQ in the US and will use the proceeds to develop its Internet presence. Satyam is the second largest Indian ISP in terms of subscription base with 80,000 subscribers. Major shareholders include Satyam Computer Services with a 59% stake, UK-based **CDC** with 17%, and US-based Internet technology company **Sterling Commerce** with 2%. (November 1, 1999)

**Tata Group** of India and **TD Waterhouse Group**, the online brokerage subsidiary of Canada's **Toronto-Dominion Bank**, have formed a JV to develop online trading in India. Waterhouse will hold a 49% stake and Tata will hold the majority stake. The JV will form a discount brokerage and offer online trading after Government approval. TD Waterhouse already offers service to customers in the US, Canada, Australia, Hong Kong, and the UK. (October 27, 1999)

**NTT Mobile Communications Network Inc (NTT DoCoMo)** and **Microsoft Corp** have formed a JV, **Mobimagic Co Ltd**, to offer wireless services in Japan. The US\$1.9bn JV will develop and market wireless data services to run on the NTT DoCoMo network. Services will initially include email access and intranet applications over NTT DoCoMo's circuit-switched Personal Handyphone System wireless network. Mobimagic will use Microsoft microbrowser technology and the Windows CE operating system. (November 4, 1999)

---

## INDONESIA

**MyWeb Inc.com** and Singapore's **L&M Group Investments** are forming a company to launch WebTV services in Indonesia in 2000. L&M will have a 90% stake in the JV and MyWeb the other 10%. (November 16, 1999)

**PT Jawa Pos**, the Indonesian media group, and **L&M Group Investments Ltd** will set up a 50/50 JV to develop Internet and ecommerce services. Jawa Pos owns 49 dailies, 6 magazines and 15 tabloid newspapers with a circulation over 2 million in Indonesia. It will bring its content online and provide Internet and ecommerce services. (November 11, 1999)

**NTT Communications (NTT)** has launched a new small transaction electronic commerce settlement service. The service will permit online content providers to charge as little as ¥1 (US\$0.01) per transaction. ICPs will be able to sell digital content via the Internet for small sums that would otherwise be impractical to charge using conventional credit card settlement of electronic accounts. NTT will use its **Calle** service to collect payments for participating digital content providers and charges will appear on the purchaser's next monthly telephone bill. There is no fee to the consumer and merchants will pay NTT an ¥8,000 (US\$75.50) monthly participation fee plus a 5% service commission on all revenues collected through the service. (October 28, 1999)

**Trans Cosmos**, a leading Japanese IT solutions provider, and **Nikko Securities**, have announced the establishment of a VC fund, **eVentures**, to make investments in Internet-related ventures in Japan. The initial fund will initially be US\$100m and will seek other partners. Trans Comos already runs a US-based Internet VC fund. (November 12, 1999)

---

## JAPAN

**Fujitsu** has merged its **InfoWeb** ISP with **Nifty-Serve**, an ISP operated by its wholly owned **Nifty Corp** subsidiary. The newly created **@nifty** ranks as Japan's largest ISP, ahead of **NEC's Biglobe** (2.7 million members) and the third largest globally (behind **AOL** and **T-Online** of Germany). **@nifty** plans to offer an i-mode cellular phone notice board service and a mobile fitter conversion service that will enable standard web pages to be displayed on mobile terminals such as cellular phones or palm-size computers. (November 5, 1999)

---

## KOREA

**asiacontent.com** has acquired **Kinopia**, the Korean online advertising company. Through **asiacontent.com**, Kinopia will expand its Internet advertising services into the region. Kinopia was formed in January 1995. It provides online advertising services for companies like Samsung Electro-Mechanics, Hyundai Marine &

Fire Insurance, LG-Caltex Oil, and Cathay Pacific Airways. (October 28, 1999)

**Dacom** has launched a B2B ecommerce portal service, **BizClick**. BizClick offers solutions for the whole ecommerce transaction process. Payment is to be settled through a purchasing card that will be issued by **Visa Korea**. By providing corporate members with the B2B ecommerce service, Dacom will charge 2% commission on sales. (November 9, 1999)

**E\*Trade**, **Softbank** and **LG Investment Securities** have formed a JV to create an online brokerage for the Korean market. Softbank will be the leading shareholder with a 40% stake, with the remaining ownership shared by LG (15%), E\*Trade (10%) and other Korean shareholders (35%). The online brokerage firm should begin operating in Q1 2000. The Korean online trading sector has accounted for more than 30% of the total turnover (about US\$42.5bn) in the market since September. Online trading also accounted for over 30% of volume. (November 3, 1999)

---

## MALAYSIA

**Catcha.com**, a Singapore based SE Asian portal, has announced plans to apply for MSC (Multimedia Super Corridor) status and a listing on one of the regional stock exchanges and Nasdaq. Catcha.com has unique sites catering to the Indonesian, Malaysian and Singaporean markets. It expects to roll out shortly in the Philippines and Thailand. Catcha.com has an average of 10 million page hits per month, growing at 50% per month. (November 6, 1999)

---

## PHILIPPINES

**AkAsia Services Corporation** has launched **PhilShop**, an e-shopping directory, including both

online shops and offline shops. Listing in PhilShop is free and ranking on the directory is based on hits and ratings submitted by visitors to the site themselves. AkAsia also provides online auctions and classified ads at its sites Panalo.com and PhilAuctions.com. (November 3, 1999)

---

## SINGAPORE

**Singapore Technologies Telemedia Pte Ltd (ST)**, **Sun Microsystems** and **America Online** are joining efforts to provide Internet portal solutions in Asia. ST will use the US alliance's software to build, host and operate Internet portals. ST is a leading telecommunications and media company and a key arm of government-linked giant **Singapore Technologies Group**. (November 4, 1999)

**Singapore Telecom** and Japan's **KDD** are forming a 50/50 JV to provide data communication services in the region. The US\$350m JV will initially offer data communications using ATM and Frame Relay, and corporate telephony using Voice over IP. The initial network will span Singapore, Japan and Hong Kong and will later be extended to ASEAN, Taiwan, Korea, the US and Europe. (December 1, 1999)

**ThatWeb.Com**, a subsidiary of **Aztech Systems** has set up a software development center in Shanghai. ThatWeb.Com is a one stop messaging portal that offers e-postcards, instant messaging, web based address book, voice over IP services, as well as email retrieval from any POP3 email address. The Shanghai R&D center will facilitate the company's penetration of the mainland China market. (December 1, 1999)

---

To submit stories for future editions of this newsletter please contact Sunny Hong in Singapore on (65) 533-8500 or shong@bdallc.com.
---

## TAIWAN

**GigaMedia Ltd**, a broadband cable Internet access provider in Taiwan, and **Microsoft** have announced a partnership to offer broadband Internet access to Taiwan. The two companies will develop a new MSN portal specifically for broadband users in Taiwan and Microsoft will invest in GigaMedia. The size of the investment was not disclosed. (November 15, 1999)

The **Taiwan Stock Exchange** announced that at the end of Q3 1999, there were 388,000 Taiwan residents trading online, a 22% month-on-month increase. Online trading accounted for 2.33% of total market turnover in September 1999. The three leading local online brokerages, **Polaris Securities**, **Kongcheng** and **Capital Securities**, account for over 45% of all online trading volume and the top 15 firms account for 90% of all volume. (November 4, 1999)

---

## THAILAND

**Jasmine International Plc**, the Thai subsidiary of **Jasmine Plc**, the UK construction and telcom group, has established an ISP in Thailand, **Jasmine Internet (Thailand) Co Ltd**. The ISP service will trade under the **Ji Net** brand name. Jasmine International invested Bht30m (US\$0.8m) into **Info Access**, a faltering ISP, and changed the name to Jasmine Internet. (November 10, 1999)

---

## VIETNAM

According to the **Vietnam Government**, there are 35,800 online subscribers in Vietnam, 50% of which are foreigners and 40% are businesses. High subscription fees have discouraged adoption by more users. An average subscription cost US\$22 a month. The average yearly income in Vietnam is US\$300. There are four ISPs in the country, three of which

are government owned and together control 96% of subscribers. (November 3, 1999)

---

## FOCUS:

### Asian online advertising

#### Introduction

Advertising revenues remain the driver behind most Internet portals' business models. As such it is important to understand the sector in Asia and to be able to draw comparisons to the more advanced US market, as clues to the way online advertising will mature in Asia.

We expect the online advertising sector in Asia, presently about two to three years behind the US, to grow rapidly in the next three years. In Asia, online advertising commands less than 1% of the total advertising market in 1998. Nevertheless, we expect that by 2003, Asia will equal the US in terms of percentage of total advertising dollars spent online, at 5% of the total advertising market. This compares with more optimistic analysts who expect the market share to reach 5% earlier.

#### Broadband/wireless

Broadband and wireless access will accelerate the growth of the Internet tremendously in Asia and, with it, the online advertising industry. It is worth noting, however, that each mode of access is best suited to particular advertising models. Broadband will allow advertisers to microtarget and track surfers, with the ability to deliver interactive "intelligent" ads with high quality video and audio. Wireless access, likely to be rolled out mostly on mobile phones, palm top computers, and other hand-held devices, will not lend itself to bandwidth intensive advertising of the broadband platform.

#### Concentration

The average Internet user views less than 100 unique websites a month, of the hundreds of millions available. As a result, strong Internet brand names

attract the lion's share of advertising revenues. For example, **the top 10 sites in the US secure 75% of total advertising revenues.** The top 10 sites in Australia secure 77% of total advertising revenues. Asia is likely to develop in a similar way and advertising revenue will be a viable revenue model only for the leaders in any sector. We expect, however, that the market leaders will be pan-Asian, and that the Japanese, Korean and greater Chinese market will consolidate separately; each with unique local market leaders.

**The industry in Asia**

Advertising companies are in the process of educating potential customers to the benefits of online advertising. Across Asia [ex-Japan], US\$21.4bn was spent on advertising in 1998. **US\$10m, or 0.05% of the total, was devoted to online advertising.** Goldman Sachs expects the market to reach 5% penetration by 2001, valuing online advertising at US\$1.5bn in market revenues. We feel that this assumption is optimistic, as the US market is only expected to spend 5% of total advertising revenues online by 2001.

**Advertising spending across Asia**

US\$	1998 total spending	1998 online only	2003 online only
Australia	4.6bn	9.0m	300m
China	5.0bn	2.5m	330m
Hong Kong	2.7bn	3.0m	150m
India	1.4bn	1.5m	70m
Japan	31.6bn	95.0m	1.6bn
Korea	NA	10.0m	185m
Singapore	NA	3.0m	40m
Taiwan	NA	4.0m	30m

Source: IDG, BDA estimates

\* The 2003 figures assume that 5% of total advertising will be online.

**Global players in Asia**

The global reach of the larger players can allow the media buyer or advertiser to centralize media buying and planning while localizing their campaigns allowing multinational advertisers to more effectively target their customer markets both inside and outside of Asia.

**24/7 Media** was the first major US player to enter Asia, through its partnership with **China.com** subsidiary **24/7 Media Asia**. 24/7 Media Asia has offices in **Hong Kong** (Asia-Pacific headquarters), **Australia, China** (Shanghai), **Japan, Korea, Singapore, Taiwan** and **Thailand**.

**CMGI**, with its recent spate of online advertising acquisitions in the US, including **2Can Media, AdForce, ADSmart** and **Flycast**, is also gaining a presence in the region via these vehicles.

**DoubleClick** launched **DoubleClick Asia** in October 1999 with **operations in Taiwan, Singapore and Hong Kong**. DoubleClick Asia is a JV with **asiacontent.com**, a leading regional Internet company which invests in Asian Internet content, advertising and ecommerce companies and partners with foreign companies to localize their brands for the Asian markets. DoubleClick has established operations in **Australia** and **Japan**. **asiacontent.com's** recent acquisition of **Kinopia**, a Korean online advertising company, will further strengthen its ability to cater to the Asian advertising market.

**Local online advertising players in Asia**

**BMCMedia.com** – Australia based, BMCMedia.com was established in 1998 to service the growing needs of advertising in the online environment. It is now Australia's largest Internet advertising agency, with offices in Sydney, Melbourne and Adelaide, and has now established a presence in Singapore and Hong Kong. It also has a partnership with the United States' third largest online network, **Flycast** and other US based agencies, **Phase 2 Media**, and **Winstar**. BMCMedia.com has partnered with Singapore firm **Active Media** to provide customized advertising campaigns for clients via the Internet.

**DKIMS Communications** – a Korean online advertising company founded in 1995. It is currently the leading local player with W360m (US\$305,000) in monthly online ad revenues [average to June 1999]. The offline Korean advertising market has been dominated by the mammoth in-house advertising agencies of large conglomerates, though they have not been able to extend their dominance to the online sector. DKIMS' clients include **Korea Telecom (KT) Freetel, IBM Korea, Hyundai Electronics Industries, the Hansol Group, Samsung Securities** and **Daewoo Corp.** KT Freetel is the leading online advertiser in Korea.

**Kinopia**, recently acquired by **asiaccontent.com**, had average monthly revenues of W190m (US\$161,000) in the same period. **Drimone**, also a direct competitor in the online advertising sector, had revenues of W120m (US\$102,000). Large traditional agencies tied to the chaebols, such as **Cheil Communications** and **Daehong Communications**, recorded less than W50m in monthly online ad revenues.

**Space Asia Media** – an Internet advertising network. Space Asia provides Internet advertising solutions for advertisers with offices in Hong Kong and Singapore. It provides an outsourced ad sales solution and ad targeting and management technology.

---

Andrew Huntley, Technology team leader  
Sunny Hong, Technology team

Paul DiGiacomo, Technology team

---

### **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.

New York  
Business Development Asia LLC  
The Economist Building, Suite 405  
111 West 57th Street  
New York, NY 10019  
Tel: (212) 265-5300  
Fax: (212) 265-4300

Singapore  
Business Development Asia Utd Pte Ltd  
20 Raffles Place  
#10-07 Ocean Towers  
Singapore 048620  
Tel: (65) 533-8500  
Fax: (65) 533-8506

bda@bdallc.com  
www.bdallc.com

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

# ASIAN TECHNOLOGY NEWSLETTER

ISSUE 16, December 1999

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

## CONTENTS

INTRODUCTION .....	1
CHINA/HONG KONG .....	1
INDIA .....	2
INDONESIA .....	3
JAPAN .....	3
KOREA .....	3
MALAYSIA .....	4
PHILIPPINES .....	4
SINGAPORE .....	4
TAIWAN .....	5
THAILAND .....	5
VIETNAM .....	5
FOCUS: Asian online advertising .....	5

## INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative. In this issue we explore the online advertising sector in Asia and profile some of the leading local players.

BDA is a corporate finance advisory firm which assists multinational clients to identify and execute acquisitions and JVs in Asia. 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/HK

**Cable & Wireless HKT (CWHKT)** and **Star TV** have combined Star's pay TV plans with CWHKT's Internet operations into a new company which they intend to take public. The service will integrate pay TV and Internet access as well as online shopping, video-on-demand, and other broadband features, and will be delivered to homes by a combination of satellite and CWHKT's broadband ADSL network. The company will initially be 60% owned by CWHKT and 40% by Star. (November 10, 1999)

**Cable & Wireless HKT** in partnership with **Microsoft** has launched a multimedia broadband portal, called **iZene**. iZene provides movies, radio, news, music and games as well as video email and discussion forums. The two firms formed a partnership in June 1999 to build a broadband portal. Users will be charged HK\$30 per month to use iZene. The portal seeks to earn most of its revenue through ecommerce and advertising. (November 1, 1999)

**China.com Corp** has reported US\$5.2m in revenues for Q3 1999, a 455% increase year-on-year and a 117% increase on Q2 1999. The company's network of greater China portals, China.com, Hongkong.com, and Taiwan.com, recorded an average of 2.5 million daily page views in Q3 1999, a 150% increase on Q2 1999. Registered users grew 88% to over 750,000. (November 4, 1999)

**China.com Corp** has acquired a 60% stake in **Clic Inc**, a Korean website design firm, for US\$1.4m. Clic

has designed sites for nearly 80 Korean corporations, including **Samsung Electronics** and **SK Telecom**. (November 3, 1999)

**Hutchison Whampoa Ltd** and **Global Crossing Ltd** have formed a 50/50 JV, **Hutchison Global Crossing**. The US\$1.2bn JV will develop fixed-line telecom and Internet business in China and Hong Kong. Hutchison's existing fixed-line fiberoptic network in Hong Kong will also be linked with Global Crossing's international undersea fiberoptic cable network. (November 14, 1999)

**International Data Group (IDG)** of the US has been investing much of its US\$100m fund into China Internet sites. IDG has invested in 25 web sites in China, most of which emphasize ecommerce. The sites include **8848.net**, which sells consumer electronics and other goods, and **Dangdang.com**, an online bookstore. Both sites are considering overseas listings next year. (November 10, 1999)

**Juniper Networks Inc**, a US-based producer of Internet backbone routers, is opening an Asia Pacific headquarters in Hong Kong. Juniper already has an office in Japan. The new location will allow Juniper to offer products in Hong Kong, China, Taiwan, Korea, Singapore, Malaysia, the Philippines, Australia and New Zealand. The company plans to open an office in Beijing in early 2000. (November 12, 1999)

**Nortel Networks** of Canada has won a contract from the **Chongqing Post and Telecommunications Administration (PTA)** to build a 10gbps optical network. The network will have capacity to carry as many as 130,000 voice calls or 192 television channels simultaneously. This will be the second 10gbps network in China. Nortel Networks had set up the first in July 1999, connecting Shanghai and Nanjing. (November 5, 1999)

**Outblaze**, the Hong Kong based messaging solutions provider, has reportedly received an offer from a US firm to acquire the company for US\$200m. Outblaze's investors include China Rich Holdings, Hikari Tsushin and Pacific Century Cyberworks. (December 2, 1999)

**Pacific Century CyberWorks** has paid US\$27m for a 8% stake in **City Telecom (CTI)**. CTI operates the second largest ISP and the second largest mobile phone service in Hong Kong and has recently listed ADRs on the NASDAQ. (November 4, 1999)

**Sina.com**, the privately owned greater China portal, has closed a US\$60m round of investment. Leading investors included **Dell Computer**, **Creative Technology Ltd**, **Pacific Century CyberWorks**, **Softbank**, **Sumitomo**, **Trend Micro** and **United Overseas Bank (UOB)** of Singapore. **Crosslink Technology Partners**, **Crystal Internet Venture Fund**, **Economic Development Board of Singapore**, **Goldman Sachs** and **Walden International Investment Group**, investors in the first round of financing, also took part in this round of financing. Sina.com is expected to list on NASDAQ in 2000. (November 9, 1999)

---

## INDIA

**BPL Telecom Business Group**, the Indian telecommunications major with the highest cellular subscription base, will launch an ISP service, **BPLNet.com**, in a month's time. The service will initially be launched in 11 cities through gateways in Delhi, Bangalore and Mumbai. **BPLNet.com** will also offer content and design solutions to consumers. (November 9, 1999)

**Satyam Infoway Limited** has targeted regional ISPs and ICPs for acquisitions and started setting up an international gateway for Internet access in India. Satyam, subsidiary of Satyam Computer Services, recently listed ADSs on the NASDAQ in the US and will use the proceeds to develop its Internet presence. Satyam is the second largest Indian ISP in terms of subscription base with 80,000 subscribers. Major shareholders include Satyam Computer Services with a 59% stake, UK-based **CDC** with 17%, and US-based Internet technology company **Sterling Commerce** with 2%. (November 1, 1999)

**Tata Group** of India and **TD Waterhouse Group**, the online brokerage subsidiary of Canada's **Toronto-Dominion Bank**, have formed a JV to develop online trading in India. Waterhouse will hold a 49% stake and Tata will hold the majority stake. The JV will form a discount brokerage and offer online trading after Government approval. TD Waterhouse already offers service to customers in the US, Canada, Australia, Hong Kong, and the UK. (October 27, 1999)

**NTT Mobile Communications Network Inc (NTT DoCoMo)** and **Microsoft Corp** have formed a JV, **Mobimagic Co Ltd**, to offer wireless services in Japan. The US\$1.9bn JV will develop and market wireless data services to run on the NTT DoCoMo network. Services will initially include email access and intranet applications over NTT DoCoMo's circuit-switched Personal Handyphone System wireless network. Mobimagic will use Microsoft microbrowser technology and the Windows CE operating system. (November 4, 1999)

---

## INDONESIA

**MyWeb Inc.com** and Singapore's **L&M Group Investments** are forming a company to launch WebTV services in Indonesia in 2000. L&M will have a 90% stake in the JV and MyWeb the other 10%. (November 16, 1999)

**PT Jawa Pos**, the Indonesian media group, and **L&M Group Investments Ltd** will set up a 50/50 JV to develop Internet and ecommerce services. Jawa Pos owns 49 dailies, 6 magazines and 15 tabloid newspapers with a circulation over 2 million in Indonesia. It will bring its content online and provide Internet and ecommerce services. (November 11, 1999)

**NTT Communications (NTT)** has launched a new small transaction electronic commerce settlement service. The service will permit online content providers to charge as little as ¥1 (US\$0.01) per transaction. ICPs will be able to sell digital content via the Internet for small sums that would otherwise be impractical to charge using conventional credit card settlement of electronic accounts. NTT will use its **Calle** service to collect payments for participating digital content providers and charges will appear on the purchaser's next monthly telephone bill. There is no fee to the consumer and merchants will pay NTT an ¥8,000 (US\$75.50) monthly participation fee plus a 5% service commission on all revenues collected through the service. (October 28, 1999)

**Trans Cosmos**, a leading Japanese IT solutions provider, and **Nikko Securities**, have announced the establishment of a VC fund, **eVentures**, to make investments in Internet-related ventures in Japan. The initial fund will initially be US\$100m and will seek other partners. Trans Comos already runs a US-based Internet VC fund. (November 12, 1999)

---

## JAPAN

**Fujitsu** has merged its **InfoWeb** ISP with **Nifty-Serve**, an ISP operated by its wholly owned **Nifty Corp** subsidiary. The newly created **@nifty** ranks as Japan's largest ISP, ahead of **NEC's Biglobe** (2.7 million members) and the third largest globally (behind **AOL** and **T-Online** of Germany). **@nifty** plans to offer an i-mode cellular phone notice board service and a mobile fitter conversion service that will enable standard web pages to be displayed on mobile terminals such as cellular phones or palm-size computers. (November 5, 1999)

---

## KOREA

**asiacontent.com** has acquired **Kinopia**, the Korean online advertising company. Through **asiacontent.com**, Kinopia will expand its Internet advertising services into the region. Kinopia was formed in January 1995. It provides online advertising services for companies like Samsung Electro-Mechanics, Hyundai Marine &

Fire Insurance, LG-Caltex Oil, and Cathay Pacific Airways. (October 28, 1999)

**Dacom** has launched a B2B ecommerce portal service, **BizClick**. BizClick offers solutions for the whole ecommerce transaction process. Payment is to be settled through a purchasing card that will be issued by **Visa Korea**. By providing corporate members with the B2B ecommerce service, Dacom will charge 2% commission on sales. (November 9, 1999)

**E\*Trade**, **Softbank** and **LG Investment Securities** have formed a JV to create an online brokerage for the Korean market. Softbank will be the leading shareholder with a 40% stake, with the remaining ownership shared by LG (15%), E\*Trade (10%) and other Korean shareholders (35%). The online brokerage firm should begin operating in Q1 2000. The Korean online trading sector has accounted for more than 30% of the total turnover (about US\$42.5bn) in the market since September. Online trading also accounted for over 30% of volume. (November 3, 1999)

---

## MALAYSIA

**Catcha.com**, a Singapore based SE Asian portal, has announced plans to apply for MSC (Multimedia Super Corridor) status and a listing on one of the regional stock exchanges and Nasdaq. Catcha.com has unique sites catering to the Indonesian, Malaysian and Singaporean markets. It expects to roll out shortly in the Philippines and Thailand. Catcha.com has an average of 10 million page hits per month, growing at 50% per month. (November 6, 1999)

---

## PHILIPPINES

**AkAsia Services Corporation** has launched **PhilShop**, an e-shopping directory, including both

online shops and offline shops. Listing in PhilShop is free and ranking on the directory is based on hits and ratings submitted by visitors to the site themselves. AkAsia also provides online auctions and classified ads at its sites Panalo.com and PhilAuctions.com. (November 3, 1999)

---

## SINGAPORE

**Singapore Technologies Telemedia Pte Ltd (ST)**, **Sun Microsystems** and **America Online** are joining efforts to provide Internet portal solutions in Asia. ST will use the US alliance's software to build, host and operate Internet portals. ST is a leading telecommunications and media company and a key arm of government-linked giant **Singapore Technologies Group**. (November 4, 1999)

**Singapore Telecom** and Japan's **KDD** are forming a 50/50 JV to provide data communication services in the region. The US\$350m JV will initially offer data communications using ATM and Frame Relay, and corporate telephony using Voice over IP. The initial network will span Singapore, Japan and Hong Kong and will later be extended to ASEAN, Taiwan, Korea, the US and Europe. (December 1, 1999)

**ThatWeb.Com**, a subsidiary of **Aztech Systems** has set up a software development center in Shanghai. ThatWeb.Com is a one stop messaging portal that offers e-postcards, instant messaging, web based address book, voice over IP services, as well as email retrieval from any POP3 email address. The Shanghai R&D center will facilitate the company's penetration of the mainland China market. (December 1, 1999)

---

To submit stories for future editions of this newsletter please contact Sunny Hong in Singapore on (65) 533-8500 or shong@bdallc.com.
---

## TAIWAN

**GigaMedia Ltd**, a broadband cable Internet access provider in Taiwan, and **Microsoft** have announced a partnership to offer broadband Internet access to Taiwan. The two companies will develop a new MSN portal specifically for broadband users in Taiwan and Microsoft will invest in GigaMedia. The size of the investment was not disclosed. (November 15, 1999)

The **Taiwan Stock Exchange** announced that at the end of Q3 1999, there were 388,000 Taiwan residents trading online, a 22% month-on-month increase. Online trading accounted for 2.33% of total market turnover in September 1999. The three leading local online brokerages, **Polaris Securities**, **Kongcheng** and **Capital Securities**, account for over 45% of all online trading volume and the top 15 firms account for 90% of all volume. (November 4, 1999)

---

## THAILAND

**Jasmine International Plc**, the Thai subsidiary of **Jasmine Plc**, the UK construction and telcom group, has established an ISP in Thailand, **Jasmine Internet (Thailand) Co Ltd**. The ISP service will trade under the **Ji Net** brand name. Jasmine International invested Bht30m (US\$0.8m) into **Info Access**, a faltering ISP, and changed the name to Jasmine Internet. (November 10, 1999)

---

## VIETNAM

According to the **Vietnam Government**, there are 35,800 online subscribers in Vietnam, 50% of which are foreigners and 40% are businesses. High subscription fees have discouraged adoption by more users. An average subscription cost US\$22 a month. The average yearly income in Vietnam is US\$300. There are four ISPs in the country, three of which

are government owned and together control 96% of subscribers. (November 3, 1999)

---

## FOCUS:

### Asian online advertising

#### Introduction

Advertising revenues remain the driver behind most Internet portals' business models. As such it is important to understand the sector in Asia and to be able to draw comparisons to the more advanced US market, as clues to the way online advertising will mature in Asia.

We expect the online advertising sector in Asia, presently about two to three years behind the US, to grow rapidly in the next three years. In Asia, online advertising commands less than 1% of the total advertising market in 1998. Nevertheless, we expect that by 2003, Asia will equal the US in terms of percentage of total advertising dollars spent online, at 5% of the total advertising market. This compares with more optimistic analysts who expect the market share to reach 5% earlier.

#### Broadband/wireless

Broadband and wireless access will accelerate the growth of the Internet tremendously in Asia and, with it, the online advertising industry. It is worth noting, however, that each mode of access is best suited to particular advertising models. Broadband will allow advertisers to microtarget and track surfers, with the ability to deliver interactive "intelligent" ads with high quality video and audio. Wireless access, likely to be rolled out mostly on mobile phones, palm top computers, and other hand-held devices, will not lend itself to bandwidth intensive advertising of the broadband platform.

#### Concentration

The average Internet user views less than 100 unique websites a month, of the hundreds of millions available. As a result, strong Internet brand names

attract the lion's share of advertising revenues. For example, **the top 10 sites in the US secure 75% of total advertising revenues.** The top 10 sites in Australia secure 77% of total advertising revenues. Asia is likely to develop in a similar way and advertising revenue will be a viable revenue model only for the leaders in any sector. We expect, however, that the market leaders will be pan-Asian, and that the Japanese, Korean and greater Chinese market will consolidate separately; each with unique local market leaders.

**The industry in Asia**

Advertising companies are in the process of educating potential customers to the benefits of online advertising. Across Asia [ex-Japan], US\$21.4bn was spent on advertising in 1998. **US\$10m, or 0.05% of the total, was devoted to online advertising.** Goldman Sachs expects the market to reach 5% penetration by 2001, valuing online advertising at US\$1.5bn in market revenues. We feel that this assumption is optimistic, as the US market is only expected to spend 5% of total advertising revenues online by 2001.

**Advertising spending across Asia**

US\$	1998 total spending	1998 online only	2003 online only
Australia	4.6bn	9.0m	300m
China	5.0bn	2.5m	330m
Hong Kong	2.7bn	3.0m	150m
India	1.4bn	1.5m	70m
Japan	31.6bn	95.0m	1.6bn
Korea	NA	10.0m	185m
Singapore	NA	3.0m	40m
Taiwan	NA	4.0m	30m

Source: IDG, BDA estimates

\* The 2003 figures assume that 5% of total advertising will be online.

**Global players in Asia**

The global reach of the larger players can allow the media buyer or advertiser to centralize media buying and planning while localizing their campaigns allowing multinational advertisers to more effectively target their customer markets both inside and outside of Asia.

**24/7 Media** was the first major US player to enter Asia, through its partnership with **China.com** subsidiary **24/7 Media Asia**. 24/7 Media Asia has offices in **Hong Kong** (Asia-Pacific headquarters), **Australia, China** (Shanghai), **Japan, Korea, Singapore, Taiwan** and **Thailand**.

**CMGI**, with its recent spate of online advertising acquisitions in the US, including **2Can Media, AdForce, ADSmart** and **Flycast**, is also gaining a presence in the region via these vehicles.

**DoubleClick** launched **DoubleClick Asia** in October 1999 with **operations in Taiwan, Singapore and Hong Kong**. DoubleClick Asia is a JV with **asiacontent.com**, a leading regional Internet company which invests in Asian Internet content, advertising and ecommerce companies and partners with foreign companies to localize their brands for the Asian markets. DoubleClick has established operations in **Australia** and **Japan**. **asiacontent.com's** recent acquisition of **Kinopia**, a Korean online advertising company, will further strengthen its ability to cater to the Asian advertising market.

**Local online advertising players in Asia**

**BMCMedia.com** – Australia based, BMCMedia.com was established in 1998 to service the growing needs of advertising in the online environment. It is now Australia's largest Internet advertising agency, with offices in Sydney, Melbourne and Adelaide, and has now established a presence in Singapore and Hong Kong. It also has a partnership with the United States' third largest online network, **Flycast** and other US based agencies, **Phase 2 Media**, and **Winstar**. BMCMedia.com has partnered with Singapore firm **Active Media** to provide customized advertising campaigns for clients via the Internet.

**DKIMS Communications** – a Korean online advertising company founded in 1995. It is currently the leading local player with W360m (US\$305,000) in monthly online ad revenues [average to June 1999]. The offline Korean advertising market has been dominated by the mammoth in-house advertising agencies of large conglomerates, though they have not been able to extend their dominance to the online sector. DKIMS' clients include **Korea Telecom (KT) Freetel, IBM Korea, Hyundai Electronics Industries, the Hansol Group, Samsung Securities** and **Daewoo Corp.** KT Freetel is the leading online advertiser in Korea.

**Kinopia**, recently acquired by **asiaccontent.com**, had average monthly revenues of W190m (US\$161,000) in the same period. **Drimone**, also a direct competitor in the online advertising sector, had revenues of W120m (US\$102,000). Large traditional agencies tied to the chaebols, such as **Cheil Communications** and **Daehong Communications**, recorded less than W50m in monthly online ad revenues.

**Space Asia Media** – an Internet advertising network. Space Asia provides Internet advertising solutions for advertisers with offices in Hong Kong and Singapore. It provides an outsourced ad sales solution and ad targeting and management technology.

---

Andrew Huntley, Technology team leader  
Sunny Hong, Technology team

Paul DiGiacomo, Technology team

---

### **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.

New York  
Business Development Asia LLC  
The Economist Building, Suite 405  
111 West 57th Street  
New York, NY 10019  
Tel: (212) 265-5300  
Fax: (212) 265-4300

Singapore  
Business Development Asia Utd Pte Ltd  
20 Raffles Place  
#10-07 Ocean Towers  
Singapore 048620  
Tel: (65) 533-8500  
Fax: (65) 533-8506

bda@bdallc.com  
www.bdallc.com

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

# ASIAN TECHNOLOGY NEWSLETTER

ISSUE 16, December 1999

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

## CONTENTS

INTRODUCTION .....	1
CHINA/HONG KONG .....	1
INDIA .....	2
INDONESIA .....	3
JAPAN .....	3
KOREA .....	3
MALAYSIA .....	4
PHILIPPINES .....	4
SINGAPORE .....	4
TAIWAN .....	5
THAILAND .....	5
VIETNAM .....	5
FOCUS: Asian online advertising .....	5

## INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative. In this issue we explore the online advertising sector in Asia and profile some of the leading local players.

BDA is a corporate finance advisory firm which assists multinational clients to identify and execute acquisitions and JVs in Asia. 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/HK

**Cable & Wireless HKT (CWHKT)** and **Star TV** have combined Star's pay TV plans with CWHKT's Internet operations into a new company which they intend to take public. The service will integrate pay TV and Internet access as well as online shopping, video-on-demand, and other broadband features, and will be delivered to homes by a combination of satellite and CWHKT's broadband ADSL network. The company will initially be 60% owned by CWHKT and 40% by Star. (November 10, 1999)

**Cable & Wireless HKT** in partnership with **Microsoft** has launched a multimedia broadband portal, called **iZene**. iZene provides movies, radio, news, music and games as well as video email and discussion forums. The two firms formed a partnership in June 1999 to build a broadband portal. Users will be charged HK\$30 per month to use iZene. The portal seeks to earn most of its revenue through ecommerce and advertising. (November 1, 1999)

**China.com Corp** has reported US\$5.2m in revenues for Q3 1999, a 455% increase year-on-year and a 117% increase on Q2 1999. The company's network of greater China portals, China.com, Hongkong.com, and Taiwan.com, recorded an average of 2.5 million daily page views in Q3 1999, a 150% increase on Q2 1999. Registered users grew 88% to over 750,000. (November 4, 1999)

**China.com Corp** has acquired a 60% stake in **Clic Inc**, a Korean website design firm, for US\$1.4m. Clic

has designed sites for nearly 80 Korean corporations, including **Samsung Electronics** and **SK Telecom**. (November 3, 1999)

**Hutchison Whampoa Ltd** and **Global Crossing Ltd** have formed a 50/50 JV, **Hutchison Global Crossing**. The US\$1.2bn JV will develop fixed-line telecom and Internet business in China and Hong Kong. Hutchison's existing fixed-line fiberoptic network in Hong Kong will also be linked with Global Crossing's international undersea fiberoptic cable network. (November 14, 1999)

**International Data Group (IDG)** of the US has been investing much of its US\$100m fund into China Internet sites. IDG has invested in 25 web sites in China, most of which emphasize ecommerce. The sites include **8848.net**, which sells consumer electronics and other goods, and **Dangdang.com**, an online bookstore. Both sites are considering overseas listings next year. (November 10, 1999)

**Juniper Networks Inc**, a US-based producer of Internet backbone routers, is opening an Asia Pacific headquarters in Hong Kong. Juniper already has an office in Japan. The new location will allow Juniper to offer products in Hong Kong, China, Taiwan, Korea, Singapore, Malaysia, the Philippines, Australia and New Zealand. The company plans to open an office in Beijing in early 2000. (November 12, 1999)

**Nortel Networks** of Canada has won a contract from the **Chongqing Post and Telecommunications Administration (PTA)** to build a 10gbps optical network. The network will have capacity to carry as many as 130,000 voice calls or 192 television channels simultaneously. This will be the second 10gbps network in China. Nortel Networks had set up the first in July 1999, connecting Shanghai and Nanjing. (November 5, 1999)

**Outblaze**, the Hong Kong based messaging solutions provider, has reportedly received an offer from a US firm to acquire the company for US\$200m. Outblaze's investors include China Rich Holdings, Hikari Tsushin and Pacific Century Cyberworks. (December 2, 1999)

**Pacific Century CyberWorks** has paid US\$27m for a 8% stake in **City Telecom (CTI)**. CTI operates the second largest ISP and the second largest mobile phone service in Hong Kong and has recently listed ADRs on the NASDAQ. (November 4, 1999)

**Sina.com**, the privately owned greater China portal, has closed a US\$60m round of investment. Leading investors included **Dell Computer**, **Creative Technology Ltd**, **Pacific Century CyberWorks**, **Softbank**, **Sumitomo**, **Trend Micro** and **United Overseas Bank (UOB)** of Singapore. **Crosslink Technology Partners**, **Crystal Internet Venture Fund**, **Economic Development Board of Singapore**, **Goldman Sachs** and **Walden International Investment Group**, investors in the first round of financing, also took part in this round of financing. Sina.com is expected to list on NASDAQ in 2000. (November 9, 1999)

---

## INDIA

**BPL Telecom Business Group**, the Indian telecommunications major with the highest cellular subscription base, will launch an ISP service, **BPLNet.com**, in a month's time. The service will initially be launched in 11 cities through gateways in Delhi, Bangalore and Mumbai. **BPLNet.com** will also offer content and design solutions to consumers. (November 9, 1999)

**Satyam Infoway Limited** has targeted regional ISPs and ICPs for acquisitions and started setting up an international gateway for Internet access in India. Satyam, subsidiary of Satyam Computer Services, recently listed ADSs on the NASDAQ in the US and will use the proceeds to develop its Internet presence. Satyam is the second largest Indian ISP in terms of subscription base with 80,000 subscribers. Major shareholders include Satyam Computer Services with a 59% stake, UK-based **CDC** with 17%, and US-based Internet technology company **Sterling Commerce** with 2%. (November 1, 1999)

**Tata Group** of India and **TD Waterhouse Group**, the online brokerage subsidiary of Canada's **Toronto-Dominion Bank**, have formed a JV to develop online trading in India. Waterhouse will hold a 49% stake and Tata will hold the majority stake. The JV will form a discount brokerage and offer online trading after Government approval. TD Waterhouse already offers service to customers in the US, Canada, Australia, Hong Kong, and the UK. (October 27, 1999)

**NTT Mobile Communications Network Inc (NTT DoCoMo)** and **Microsoft Corp** have formed a JV, **Mobimagic Co Ltd**, to offer wireless services in Japan. The US\$1.9bn JV will develop and market wireless data services to run on the NTT DoCoMo network. Services will initially include email access and intranet applications over NTT DoCoMo's circuit-switched Personal Handyphone System wireless network. Mobimagic will use Microsoft microbrowser technology and the Windows CE operating system. (November 4, 1999)

---

## INDONESIA

**MyWeb Inc.com** and Singapore's **L&M Group Investments** are forming a company to launch WebTV services in Indonesia in 2000. L&M will have a 90% stake in the JV and MyWeb the other 10%. (November 16, 1999)

**PT Jawa Pos**, the Indonesian media group, and **L&M Group Investments Ltd** will set up a 50/50 JV to develop Internet and ecommerce services. Jawa Pos owns 49 dailies, 6 magazines and 15 tabloid newspapers with a circulation over 2 million in Indonesia. It will bring its content online and provide Internet and ecommerce services. (November 11, 1999)

**NTT Communications (NTT)** has launched a new small transaction electronic commerce settlement service. The service will permit online content providers to charge as little as ¥1 (US\$0.01) per transaction. ICPs will be able to sell digital content via the Internet for small sums that would otherwise be impractical to charge using conventional credit card settlement of electronic accounts. NTT will use its **Calle** service to collect payments for participating digital content providers and charges will appear on the purchaser's next monthly telephone bill. There is no fee to the consumer and merchants will pay NTT an ¥8,000 (US\$75.50) monthly participation fee plus a 5% service commission on all revenues collected through the service. (October 28, 1999)

**Trans Cosmos**, a leading Japanese IT solutions provider, and **Nikko Securities**, have announced the establishment of a VC fund, **eVentures**, to make investments in Internet-related ventures in Japan. The initial fund will initially be US\$100m and will seek other partners. Trans Comos already runs a US-based Internet VC fund. (November 12, 1999)

---

## JAPAN

**Fujitsu** has merged its **InfoWeb** ISP with **Nifty-Serve**, an ISP operated by its wholly owned **Nifty Corp** subsidiary. The newly created **@nifty** ranks as Japan's largest ISP, ahead of **NEC's Biglobe** (2.7 million members) and the third largest globally (behind **AOL** and **T-Online** of Germany). **@nifty** plans to offer an i-mode cellular phone notice board service and a mobile fitter conversion service that will enable standard web pages to be displayed on mobile terminals such as cellular phones or palm-size computers. (November 5, 1999)

---

## KOREA

**asiacontent.com** has acquired **Kinopia**, the Korean online advertising company. Through **asiacontent.com**, Kinopia will expand its Internet advertising services into the region. Kinopia was formed in January 1995. It provides online advertising services for companies like Samsung Electro-Mechanics, Hyundai Marine &

Fire Insurance, LG-Caltex Oil, and Cathay Pacific Airways. (October 28, 1999)

**Dacom** has launched a B2B ecommerce portal service, **BizClick**. BizClick offers solutions for the whole ecommerce transaction process. Payment is to be settled through a purchasing card that will be issued by **Visa Korea**. By providing corporate members with the B2B ecommerce service, Dacom will charge 2% commission on sales. (November 9, 1999)

**E\*Trade**, **Softbank** and **LG Investment Securities** have formed a JV to create an online brokerage for the Korean market. Softbank will be the leading shareholder with a 40% stake, with the remaining ownership shared by LG (15%), E\*Trade (10%) and other Korean shareholders (35%). The online brokerage firm should begin operating in Q1 2000. The Korean online trading sector has accounted for more than 30% of the total turnover (about US\$42.5bn) in the market since September. Online trading also accounted for over 30% of volume. (November 3, 1999)

---

## MALAYSIA

**Catcha.com**, a Singapore based SE Asian portal, has announced plans to apply for MSC (Multimedia Super Corridor) status and a listing on one of the regional stock exchanges and Nasdaq. Catcha.com has unique sites catering to the Indonesian, Malaysian and Singaporean markets. It expects to roll out shortly in the Philippines and Thailand. Catcha.com has an average of 10 million page hits per month, growing at 50% per month. (November 6, 1999)

---

## PHILIPPINES

**AkAsia Services Corporation** has launched **PhilShop**, an e-shopping directory, including both

online shops and offline shops. Listing in PhilShop is free and ranking on the directory is based on hits and ratings submitted by visitors to the site themselves. AkAsia also provides online auctions and classified ads at its sites Panalo.com and PhilAuctions.com. (November 3, 1999)

---

## SINGAPORE

**Singapore Technologies Telemedia Pte Ltd (ST)**, **Sun Microsystems** and **America Online** are joining efforts to provide Internet portal solutions in Asia. ST will use the US alliance's software to build, host and operate Internet portals. ST is a leading telecommunications and media company and a key arm of government-linked giant **Singapore Technologies Group**. (November 4, 1999)

**Singapore Telecom** and Japan's **KDD** are forming a 50/50 JV to provide data communication services in the region. The US\$350m JV will initially offer data communications using ATM and Frame Relay, and corporate telephony using Voice over IP. The initial network will span Singapore, Japan and Hong Kong and will later be extended to ASEAN, Taiwan, Korea, the US and Europe. (December 1, 1999)

**ThatWeb.Com**, a subsidiary of **Aztech Systems** has set up a software development center in Shanghai. ThatWeb.Com is a one stop messaging portal that offers e-postcards, instant messaging, web based address book, voice over IP services, as well as email retrieval from any POP3 email address. The Shanghai R&D center will facilitate the company's penetration of the mainland China market. (December 1, 1999)

---

To submit stories for future editions of this newsletter please contact Sunny Hong in Singapore on (65) 533-8500 or shong@bdallc.com.
---

## TAIWAN

**GigaMedia Ltd**, a broadband cable Internet access provider in Taiwan, and **Microsoft** have announced a partnership to offer broadband Internet access to Taiwan. The two companies will develop a new MSN portal specifically for broadband users in Taiwan and Microsoft will invest in GigaMedia. The size of the investment was not disclosed. (November 15, 1999)

The **Taiwan Stock Exchange** announced that at the end of Q3 1999, there were 388,000 Taiwan residents trading online, a 22% month-on-month increase. Online trading accounted for 2.33% of total market turnover in September 1999. The three leading local online brokerages, **Polaris Securities**, **Kongcheng** and **Capital Securities**, account for over 45% of all online trading volume and the top 15 firms account for 90% of all volume. (November 4, 1999)

---

## THAILAND

**Jasmine International Plc**, the Thai subsidiary of **Jasmine Plc**, the UK construction and telcom group, has established an ISP in Thailand, **Jasmine Internet (Thailand) Co Ltd**. The ISP service will trade under the **Ji Net** brand name. Jasmine International invested Bht30m (US\$0.8m) into **Info Access**, a faltering ISP, and changed the name to Jasmine Internet. (November 10, 1999)

---

## VIETNAM

According to the **Vietnam Government**, there are 35,800 online subscribers in Vietnam, 50% of which are foreigners and 40% are businesses. High subscription fees have discouraged adoption by more users. An average subscription cost US\$22 a month. The average yearly income in Vietnam is US\$300. There are four ISPs in the country, three of which

are government owned and together control 96% of subscribers. (November 3, 1999)

---

## FOCUS:

### Asian online advertising

#### Introduction

Advertising revenues remain the driver behind most Internet portals' business models. As such it is important to understand the sector in Asia and to be able to draw comparisons to the more advanced US market, as clues to the way online advertising will mature in Asia.

We expect the online advertising sector in Asia, presently about two to three years behind the US, to grow rapidly in the next three years. In Asia, online advertising commands less than 1% of the total advertising market in 1998. Nevertheless, we expect that by 2003, Asia will equal the US in terms of percentage of total advertising dollars spent online, at 5% of the total advertising market. This compares with more optimistic analysts who expect the market share to reach 5% earlier.

#### Broadband/wireless

Broadband and wireless access will accelerate the growth of the Internet tremendously in Asia and, with it, the online advertising industry. It is worth noting, however, that each mode of access is best suited to particular advertising models. Broadband will allow advertisers to microtarget and track surfers, with the ability to deliver interactive "intelligent" ads with high quality video and audio. Wireless access, likely to be rolled out mostly on mobile phones, palm top computers, and other hand-held devices, will not lend itself to bandwidth intensive advertising of the broadband platform.

#### Concentration

The average Internet user views less than 100 unique websites a month, of the hundreds of millions available. As a result, strong Internet brand names

attract the lion's share of advertising revenues. For example, **the top 10 sites in the US secure 75% of total advertising revenues.** The top 10 sites in Australia secure 77% of total advertising revenues. Asia is likely to develop in a similar way and advertising revenue will be a viable revenue model only for the leaders in any sector. We expect, however, that the market leaders will be pan-Asian, and that the Japanese, Korean and greater Chinese market will consolidate separately; each with unique local market leaders.

### The industry in Asia

Advertising companies are in the process of educating potential customers to the benefits of online advertising. Across Asia [ex-Japan], US\$21.4bn was spent on advertising in 1998. **US\$10m, or 0.05% of the total, was devoted to online advertising.** Goldman Sachs expects the market to reach 5% penetration by 2001, valuing online advertising at US\$1.5bn in market revenues. We feel that this assumption is optimistic, as the US market is only expected to spend 5% of total advertising revenues online by 2001.

### Advertising spending across Asia

US\$	1998 total spending	1998 online only	2003 online only
Australia	4.6bn	9.0m	300m
China	5.0bn	2.5m	330m
Hong Kong	2.7bn	3.0m	150m
India	1.4bn	1.5m	70m
Japan	31.6bn	95.0m	1.6bn
Korea	NA	10.0m	185m
Singapore	NA	3.0m	40m
Taiwan	NA	4.0m	30m

Source: IDG, BDA estimates

\* The 2003 figures assume that 5% of total advertising will be online.

### Global players in Asia

The global reach of the larger players can allow the media buyer or advertiser to centralize media buying and planning while localizing their campaigns allowing multinational advertisers to more effectively target their customer markets both inside and outside of Asia.

**24/7 Media** was the first major US player to enter Asia, through its partnership with **China.com** subsidiary **24/7 Media Asia**. 24/7 Media Asia has offices in **Hong Kong** (Asia-Pacific headquarters), **Australia, China** (Shanghai), **Japan, Korea, Singapore, Taiwan** and **Thailand**.

**CMGI**, with its recent spate of online advertising acquisitions in the US, including **2Can Media, AdForce, ADSmart** and **Flycast**, is also gaining a presence in the region via these vehicles.

**DoubleClick** launched **DoubleClick Asia** in October 1999 with **operations in Taiwan, Singapore and Hong Kong**. DoubleClick Asia is a JV with **asiacontent.com**, a leading regional Internet company which invests in Asian Internet content, advertising and ecommerce companies and partners with foreign companies to localize their brands for the Asian markets. DoubleClick has established operations in **Australia** and **Japan**. **asiacontent.com's** recent acquisition of **Kinopia**, a Korean online advertising company, will further strengthen its ability to cater to the Asian advertising market.

### Local online advertising players in Asia

**BMCMedia.com** – Australia based, BMCMedia.com was established in 1998 to service the growing needs of advertising in the online environment. It is now Australia's largest Internet advertising agency, with offices in Sydney, Melbourne and Adelaide, and has now established a presence in Singapore and Hong Kong. It also has a partnership with the United States' third largest online network, **Flycast** and other US based agencies, **Phase 2 Media**, and **Winstar**. BMCMedia.com has partnered with Singapore firm **Active Media** to provide customized advertising campaigns for clients via the Internet.

**DKIMS Communications** – a Korean online advertising company founded in 1995. It is currently the leading local player with W360m (US\$305,000) in monthly online ad revenues [average to June 1999]. The offline Korean advertising market has been dominated by the mammoth in-house advertising agencies of large conglomerates, though they have not been able to extend their dominance to the online sector. DKIMS' clients include **Korea Telecom (KT) Freetel, IBM Korea, Hyundai Electronics Industries, the Hansol Group, Samsung Securities** and **Daewoo Corp.** KT Freetel is the leading online advertiser in Korea.

**Kinopia**, recently acquired by **asiaccontent.com**, had average monthly revenues of W190m (US\$161,000) in the same period. **Drimone**, also a direct competitor in the online advertising sector, had revenues of W120m (US\$102,000). Large traditional agencies tied to the chaebols, such as **Cheil Communications** and **Daehong Communications**, recorded less than W50m in monthly online ad revenues.

**Space Asia Media** – an Internet advertising network. Space Asia provides Internet advertising solutions for advertisers with offices in Hong Kong and Singapore. It provides an outsourced ad sales solution and ad targeting and management technology.

---

Andrew Huntley, Technology team leader  
Sunny Hong, Technology team

Paul DiGiacomo, Technology team

---

### **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.

New York  
Business Development Asia LLC  
The Economist Building, Suite 405  
111 West 57th Street  
New York, NY 10019  
Tel: (212) 265-5300  
Fax: (212) 265-4300

Singapore  
Business Development Asia Utd Pte Ltd  
20 Raffles Place  
#10-07 Ocean Towers  
Singapore 048620  
Tel: (65) 533-8500  
Fax: (65) 533-8506

bda@bdallc.com  
www.bdallc.com

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

## ASIAN TECHNOLOGY NEWSLETTER

ISSUE 16, December 1999

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

### CONTENTS

INTRODUCTION .....	1
CHINA/HONG KONG .....	1
INDIA .....	2
INDONESIA .....	3
JAPAN .....	3
KOREA .....	3
MALAYSIA .....	4
PHILIPPINES .....	4
SINGAPORE .....	4
TAIWAN .....	5
THAILAND .....	5
VIETNAM .....	5
FOCUS: Asian online advertising .....	5

### INTRODUCTION

We hope that you find the *Asian Technology Newsletter* informative. In this issue we explore the online advertising sector in Asia and profile some of the leading local players.

BDA is a corporate finance advisory firm which assists multinational clients to identify and execute acquisitions and JVs in Asia. 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/HK

**Cable & Wireless HKT (CWHKT)** and **Star TV** have combined Star's pay TV plans with CWHKT's Internet operations into a new company which they intend to take public. The service will integrate pay TV and Internet access as well as online shopping, video-on-demand, and other broadband features, and will be delivered to homes by a combination of satellite and CWHKT's broadband ADSL network. The company will initially be 60% owned by CWHKT and 40% by Star. (November 10, 1999)

**Cable & Wireless HKT** in partnership with **Microsoft** has launched a multimedia broadband portal, called **iZene**. iZene provides movies, radio, news, music and games as well as video email and discussion forums. The two firms formed a partnership in June 1999 to build a broadband portal. Users will be charged HK\$30 per month to use iZene. The portal seeks to earn most of its revenue through ecommerce and advertising. (November 1, 1999)

**China.com Corp** has reported US\$5.2m in revenues for Q3 1999, a 455% increase year-on-year and a 117% increase on Q2 1999. The company's network of greater China portals, China.com, Hongkong.com, and Taiwan.com, recorded an average of 2.5 million daily page views in Q3 1999, a 150% increase on Q2 1999. Registered users grew 88% to over 750,000. (November 4, 1999)

**China.com Corp** has acquired a 60% stake in **Clic Inc**, a Korean website design firm, for US\$1.4m. Clic

has designed sites for nearly 80 Korean corporations, including **Samsung Electronics** and **SK Telecom**. (November 3, 1999)

**Hutchison Whampoa Ltd** and **Global Crossing Ltd** have formed a 50/50 JV, **Hutchison Global Crossing**. The US\$1.2bn JV will develop fixed-line telecom and Internet business in China and Hong Kong. Hutchison's existing fixed-line fiberoptic network in Hong Kong will also be linked with Global Crossing's international undersea fiberoptic cable network. (November 14, 1999)

**International Data Group (IDG)** of the US has been investing much of its US\$100m fund into China Internet sites. IDG has invested in 25 web sites in China, most of which emphasize ecommerce. The sites include **8848.net**, which sells consumer electronics and other goods, and **Dangdang.com**, an online bookstore. Both sites are considering overseas listings next year. (November 10, 1999)

**Juniper Networks Inc**, a US-based producer of Internet backbone routers, is opening an Asia Pacific headquarters in Hong Kong. Juniper already has an office in Japan. The new location will allow Juniper to offer products in Hong Kong, China, Taiwan, Korea, Singapore, Malaysia, the Philippines, Australia and New Zealand. The company plans to open an office in Beijing in early 2000. (November 12, 1999)

**Nortel Networks** of Canada has won a contract from the **Chongqing Post and Telecommunications Administration (PTA)** to build a 10gbps optical network. The network will have capacity to carry as many as 130,000 voice calls or 192 television channels simultaneously. This will be the second 10gbps network in China. Nortel Networks had set up the first in July 1999, connecting Shanghai and Nanjing. (November 5, 1999)

**Outblaze**, the Hong Kong based messaging solutions provider, has reportedly received an offer from a US firm to acquire the company for US\$200m. Outblaze's investors include China Rich Holdings, Hikari Tsushin and Pacific Century Cyberworks. (December 2, 1999)

**Pacific Century CyberWorks** has paid US\$27m for a 8% stake in **City Telecom (CTI)**. CTI operates the second largest ISP and the second largest mobile phone service in Hong Kong and has recently listed ADRs on the NASDAQ. (November 4, 1999)

**Sina.com**, the privately owned greater China portal, has closed a US\$60m round of investment. Leading investors included **Dell Computer**, **Creative Technology Ltd**, **Pacific Century CyberWorks**, **Softbank**, **Sumitomo**, **Trend Micro** and **United Overseas Bank (UOB)** of Singapore. **Crosslink Technology Partners**, **Crystal Internet Venture Fund**, **Economic Development Board of Singapore**, **Goldman Sachs** and **Walden International Investment Group**, investors in the first round of financing, also took part in this round of financing. Sina.com is expected to list on NASDAQ in 2000. (November 9, 1999)

---

## INDIA

**BPL Telecom Business Group**, the Indian telecommunications major with the highest cellular subscription base, will launch an ISP service, **BPLNet.com**, in a month's time. The service will initially be launched in 11 cities through gateways in Delhi, Bangalore and Mumbai. **BPLNet.com** will also offer content and design solutions to consumers. (November 9, 1999)

**Satyam Infoway Limited** has targeted regional ISPs and ICPs for acquisitions and started setting up an international gateway for Internet access in India. Satyam, subsidiary of Satyam Computer Services, recently listed ADSs on the NASDAQ in the US and will use the proceeds to develop its Internet presence. Satyam is the second largest Indian ISP in terms of subscription base with 80,000 subscribers. Major shareholders include Satyam Computer Services with a 59% stake, UK-based **CDC** with 17%, and US-based Internet technology company **Sterling Commerce** with 2%. (November 1, 1999)

**Tata Group** of India and **TD Waterhouse Group**, the online brokerage subsidiary of Canada's **Toronto-Dominion Bank**, have formed a JV to develop online trading in India. Waterhouse will hold a 49% stake and Tata will hold the majority stake. The JV will form a discount brokerage and offer online trading after Government approval. TD Waterhouse already offers service to customers in the US, Canada, Australia, Hong Kong, and the UK. (October 27, 1999)

**NTT Mobile Communications Network Inc (NTT DoCoMo)** and **Microsoft Corp** have formed a JV, **Mobimagic Co Ltd**, to offer wireless services in Japan. The US\$1.9bn JV will develop and market wireless data services to run on the NTT DoCoMo network. Services will initially include email access and intranet applications over NTT DoCoMo's circuit-switched Personal Handyphone System wireless network. Mobimagic will use Microsoft microbrowser technology and the Windows CE operating system. (November 4, 1999)

---

## INDONESIA

**MyWeb Inc.com** and Singapore's **L&M Group Investments** are forming a company to launch WebTV services in Indonesia in 2000. L&M will have a 90% stake in the JV and MyWeb the other 10%. (November 16, 1999)

**PT Jawa Pos**, the Indonesian media group, and **L&M Group Investments Ltd** will set up a 50/50 JV to develop Internet and ecommerce services. Jawa Pos owns 49 dailies, 6 magazines and 15 tabloid newspapers with a circulation over 2 million in Indonesia. It will bring its content online and provide Internet and ecommerce services. (November 11, 1999)

**NTT Communications (NTT)** has launched a new small transaction electronic commerce settlement service. The service will permit online content providers to charge as little as ¥1 (US\$0.01) per transaction. ICPs will be able to sell digital content via the Internet for small sums that would otherwise be impractical to charge using conventional credit card settlement of electronic accounts. NTT will use its **Calle** service to collect payments for participating digital content providers and charges will appear on the purchaser's next monthly telephone bill. There is no fee to the consumer and merchants will pay NTT an ¥8,000 (US\$75.50) monthly participation fee plus a 5% service commission on all revenues collected through the service. (October 28, 1999)

**Trans Cosmos**, a leading Japanese IT solutions provider, and **Nikko Securities**, have announced the establishment of a VC fund, **eVentures**, to make investments in Internet-related ventures in Japan. The initial fund will initially be US\$100m and will seek other partners. Trans Comos already runs a US-based Internet VC fund. (November 12, 1999)

---

## JAPAN

**Fujitsu** has merged its **InfoWeb** ISP with **Nifty-Serve**, an ISP operated by its wholly owned **Nifty Corp** subsidiary. The newly created **@nifty** ranks as Japan's largest ISP, ahead of **NEC's Biglobe** (2.7 million members) and the third largest globally (behind **AOL** and **T-Online** of Germany). **@nifty** plans to offer an i-mode cellular phone notice board service and a mobile fitter conversion service that will enable standard web pages to be displayed on mobile terminals such as cellular phones or palm-size computers. (November 5, 1999)

---

## KOREA

**asiacontent.com** has acquired **Kinopia**, the Korean online advertising company. Through **asiacontent.com**, Kinopia will expand its Internet advertising services into the region. Kinopia was formed in January 1995. It provides online advertising services for companies like Samsung Electro-Mechanics, Hyundai Marine &

Fire Insurance, LG-Caltex Oil, and Cathay Pacific Airways. (October 28, 1999)

**Dacom** has launched a B2B ecommerce portal service, **BizClick**. BizClick offers solutions for the whole ecommerce transaction process. Payment is to be settled through a purchasing card that will be issued by **Visa Korea**. By providing corporate members with the B2B ecommerce service, Dacom will charge 2% commission on sales. (November 9, 1999)

**E\*Trade**, **Softbank** and **LG Investment Securities** have formed a JV to create an online brokerage for the Korean market. Softbank will be the leading shareholder with a 40% stake, with the remaining ownership shared by LG (15%), E\*Trade (10%) and other Korean shareholders (35%). The online brokerage firm should begin operating in Q1 2000. The Korean online trading sector has accounted for more than 30% of the total turnover (about US\$42.5bn) in the market since September. Online trading also accounted for over 30% of volume. (November 3, 1999)

---

## MALAYSIA

**Catcha.com**, a Singapore based SE Asian portal, has announced plans to apply for MSC (Multimedia Super Corridor) status and a listing on one of the regional stock exchanges and Nasdaq. Catcha.com has unique sites catering to the Indonesian, Malaysian and Singaporean markets. It expects to roll out shortly in the Philippines and Thailand. Catcha.com has an average of 10 million page hits per month, growing at 50% per month. (November 6, 1999)

---

## PHILIPPINES

**AkAsia Services Corporation** has launched **PhilShop**, an e-shopping directory, including both

online shops and offline shops. Listing in PhilShop is free and ranking on the directory is based on hits and ratings submitted by visitors to the site themselves. AkAsia also provides online auctions and classified ads at its sites Panalo.com and PhilAuctions.com. (November 3, 1999)

---

## SINGAPORE

**Singapore Technologies Telemedia Pte Ltd (ST)**, **Sun Microsystems** and **America Online** are joining efforts to provide Internet portal solutions in Asia. ST will use the US alliance's software to build, host and operate Internet portals. ST is a leading telecommunications and media company and a key arm of government-linked giant **Singapore Technologies Group**. (November 4, 1999)

**Singapore Telecom** and Japan's **KDD** are forming a 50/50 JV to provide data communication services in the region. The US\$350m JV will initially offer data communications using ATM and Frame Relay, and corporate telephony using Voice over IP. The initial network will span Singapore, Japan and Hong Kong and will later be extended to ASEAN, Taiwan, Korea, the US and Europe. (December 1, 1999)

**ThatWeb.Com**, a subsidiary of **Aztech Systems** has set up a software development center in Shanghai. ThatWeb.Com is a one stop messaging portal that offers e-postcards, instant messaging, web based address book, voice over IP services, as well as email retrieval from any POP3 email address. The Shanghai R&D center will facilitate the company's penetration of the mainland China market. (December 1, 1999)

---

To submit stories for future editions of this newsletter please contact Sunny Hong in Singapore on (65) 533-8500 or shong@bdallc.com.

## TAIWAN

**GigaMedia Ltd**, a broadband cable Internet access provider in Taiwan, and **Microsoft** have announced a partnership to offer broadband Internet access to Taiwan. The two companies will develop a new MSN portal specifically for broadband users in Taiwan and Microsoft will invest in GigaMedia. The size of the investment was not disclosed. (November 15, 1999)

The **Taiwan Stock Exchange** announced that at the end of Q3 1999, there were 388,000 Taiwan residents trading online, a 22% month-on-month increase. Online trading accounted for 2.33% of total market turnover in September 1999. The three leading local online brokerages, **Polaris Securities**, **Kongcheng** and **Capital Securities**, account for over 45% of all online trading volume and the top 15 firms account for 90% of all volume. (November 4, 1999)

---

## THAILAND

**Jasmine International Plc**, the Thai subsidiary of **Jasmine Plc**, the UK construction and telcom group, has established an ISP in Thailand, **Jasmine Internet (Thailand) Co Ltd**. The ISP service will trade under the **Ji Net** brand name. Jasmine International invested Bht30m (US\$0.8m) into **Info Access**, a faltering ISP, and changed the name to Jasmine Internet. (November 10, 1999)

---

## VIETNAM

According to the **Vietnam Government**, there are 35,800 online subscribers in Vietnam, 50% of which are foreigners and 40% are businesses. High subscription fees have discouraged adoption by more users. An average subscription cost US\$22 a month. The average yearly income in Vietnam is US\$300. There are four ISPs in the country, three of which

are government owned and together control 96% of subscribers. (November 3, 1999)

---

## FOCUS:

### Asian online advertising

#### Introduction

Advertising revenues remain the driver behind most Internet portals' business models. As such it is important to understand the sector in Asia and to be able to draw comparisons to the more advanced US market, as clues to the way online advertising will mature in Asia.

We expect the online advertising sector in Asia, presently about two to three years behind the US, to grow rapidly in the next three years. In Asia, online advertising commands less than 1% of the total advertising market in 1998. Nevertheless, we expect that by 2003, Asia will equal the US in terms of percentage of total advertising dollars spent online, at 5% of the total advertising market. This compares with more optimistic analysts who expect the market share to reach 5% earlier.

#### Broadband/wireless

Broadband and wireless access will accelerate the growth of the Internet tremendously in Asia and, with it, the online advertising industry. It is worth noting, however, that each mode of access is best suited to particular advertising models. Broadband will allow advertisers to microtarget and track surfers, with the ability to deliver interactive "intelligent" ads with high quality video and audio. Wireless access, likely to be rolled out mostly on mobile phones, palm top computers, and other hand-held devices, will not lend itself to bandwidth intensive advertising of the broadband platform.

#### Concentration

The average Internet user views less than 100 unique websites a month, of the hundreds of millions available. As a result, strong Internet brand names

attract the lion's share of advertising revenues. For example, **the top 10 sites in the US secure 75% of total advertising revenues.** The top 10 sites in Australia secure 77% of total advertising revenues. Asia is likely to develop in a similar way and advertising revenue will be a viable revenue model only for the leaders in any sector. We expect, however, that the market leaders will be pan-Asian, and that the Japanese, Korean and greater Chinese market will consolidate separately; each with unique local market leaders.

### The industry in Asia

Advertising companies are in the process of educating potential customers to the benefits of online advertising. Across Asia [ex-Japan], US\$21.4bn was spent on advertising in 1998. **US\$10m, or 0.05% of the total, was devoted to online advertising.** Goldman Sachs expects the market to reach 5% penetration by 2001, valuing online advertising at US\$1.5bn in market revenues. We feel that this assumption is optimistic, as the US market is only expected to spend 5% of total advertising revenues online by 2001.

### Advertising spending across Asia

US\$	1998 total spending	1998 online only	2003 online only
Australia	4.6bn	9.0m	300m
China	5.0bn	2.5m	330m
Hong Kong	2.7bn	3.0m	150m
India	1.4bn	1.5m	70m
Japan	31.6bn	95.0m	1.6bn
Korea	NA	10.0m	185m
Singapore	NA	3.0m	40m
Taiwan	NA	4.0m	30m

Source: IDG, BDA estimates

\* The 2003 figures assume that 5% of total advertising will be online.

### Global players in Asia

The global reach of the larger players can allow the media buyer or advertiser to centralize media buying and planning while localizing their campaigns allowing multinational advertisers to more effectively target their customer markets both inside and outside of Asia.

**24/7 Media** was the first major US player to enter Asia, through its partnership with **China.com** subsidiary **24/7 Media Asia**. 24/7 Media Asia has offices in **Hong Kong** (Asia-Pacific headquarters), **Australia, China** (Shanghai), **Japan, Korea, Singapore, Taiwan** and **Thailand**.

**CMGI**, with its recent spate of online advertising acquisitions in the US, including **2Can Media, AdForce, ADSmart** and **Flycast**, is also gaining a presence in the region via these vehicles.

**DoubleClick** launched **DoubleClick Asia** in October 1999 with **operations in Taiwan, Singapore and Hong Kong**. DoubleClick Asia is a JV with **asiacontent.com**, a leading regional Internet company which invests in Asian Internet content, advertising and ecommerce companies and partners with foreign companies to localize their brands for the Asian markets. DoubleClick has established operations in **Australia** and **Japan**. **asiacontent.com's** recent acquisition of **Kinopia**, a Korean online advertising company, will further strengthen its ability to cater to the Asian advertising market.

### Local online advertising players in Asia

**BMCMedia.com** – Australia based, BMCMedia.com was established in 1998 to service the growing needs of advertising in the online environment. It is now Australia's largest Internet advertising agency, with offices in Sydney, Melbourne and Adelaide, and has now established a presence in Singapore and Hong Kong. It also has a partnership with the United States' third largest online network, **Flycast** and other US based agencies, **Phase 2 Media**, and **Winstar**. BMCMedia.com has partnered with Singapore firm **Active Media** to provide customized advertising campaigns for clients via the Internet.

**DKIMS Communications** – a Korean online advertising company founded in 1995. It is currently the leading local player with W360m (US\$305,000) in monthly online ad revenues [average to June 1999]. The offline Korean advertising market has been dominated by the mammoth in-house advertising agencies of large conglomerates, though they have not been able to extend their dominance to the online sector. DKIMS' clients include **Korea Telecom (KT) Freetel, IBM Korea, Hyundai Electronics Industries, the Hansol Group, Samsung Securities** and **Daewoo Corp.** KT Freetel is the leading online advertiser in Korea.

**Kinopia**, recently acquired by **asiaccontent.com**, had average monthly revenues of W190m (US\$161,000) in the same period. **Drimone**, also a direct competitor in the online advertising sector, had revenues of W120m (US\$102,000). Large traditional agencies tied to the chaebols, such as **Cheil Communications** and **Daehong Communications**, recorded less than W50m in monthly online ad revenues.

**Space Asia Media** – an Internet advertising network. Space Asia provides Internet advertising solutions for advertisers with offices in Hong Kong and Singapore. It provides an outsourced ad sales solution and ad targeting and management technology.

---

Andrew Huntley, Technology team leader  
Sunny Hong, Technology team

Paul DiGiacomo, Technology team

---

### **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.

New York  
Business Development Asia LLC  
The Economist Building, Suite 405  
111 West 57th Street  
New York, NY 10019  
Tel: (212) 265-5300  
Fax: (212) 265-4300

Singapore  
Business Development Asia Utd Pte Ltd  
20 Raffles Place  
#10-07 Ocean Towers  
Singapore 048620  
Tel: (65) 533-8500  
Fax: (65) 533-8506

bda@bdallc.com  
www.bdallc.com