

IRG WMR



IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review

Week of 12 November - 18 November, 2006

For more information on IRG, please email communications@irg.biz or visit www.irg.biz.

Hong Kong (HQ)

No.1-2A, 17/F, The Centrium,
60 Wyndham Street, Central,
Hong Kong

Tel: (852) 2237 6000
Fax: (852) 2237 6100

Singapore

5 Rhu Cross, #04-16
Olivia Block, Singapore

437434 Singapore
Tel: (65) 6325 1191
Fax: (65) 6348 9583

Japan

JT Building 15Fl, 2-2-1
Toranomon, Minato-ku,

Tokyo, Japan 105-0001
Tel: (813) 5114 8395
Fax: (813) 5114 8396

Korea

37/F, Asem Tower, Samsung-
dong, 158-1, Kangnam-gu,
Seoul, Korea

Tel: (822) 6001 3840 ext. 3841
Fax: (822) 6001 3711

Philippines

2/F, State Condominium Bldg.,
186 Sacledo St. Legazpi Village,
Makati, Philippines

Tel: (632) 728 5307
Fax: (632) 728 5307

ideas | reach | growth

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Table of Contents

Equity Market Indicators	3
Technology, Media, Telecommunications and Life Sciences Market Activity	4
Weekly Highlights	6
International	6
Japan	6
Korea	9
China	13
Taiwan	17
Hong Kong	18
Singapore/Malaysia/Philippines/Indonesia	18
United States/Canada	19
Europe	22
Other Economic Data	23
Currency Exchange Rates	23
Fixed Income Prices and Yields	23

This document is provided for information purposes only, and constitutes neither investment advice nor the recommendation to purchase or sell securities of the companies named in this document. IRG Limited, f/k/a iReality Group Limited, and its affiliated companies, make no representation as to the accuracy or completeness of the information contained in this document. For more information on IRG call (852) 2237 6000 or visit www.irg.biz.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Equity Market Indicators					
Index	Closing Level (11/17/2006)	% Change 1 Week Ago	% Change 1/1/2006	% Change 1/1/2005	% Change 2005 Low
S&P 500	1,401.20	1.5%	12.2%	15.6%	23.2%
Dow Jones Industrial Avg.	12,342.56	1.9%	15.2%	14.5%	23.3%
Dow Jones Tech. Index	412.86	2.4%	10.1%	16.2%	32.2%
Dow Jones Telecom. Index	246.83	1.1%	22.4%	13.3%	25.2%
NASDAQ Composite	2,445.86	2.3%	10.9%	12.4%	28.4%
The Street.com Net	252.07	2.7%	19.8%	21.0%	44.4%
Japan Nikkei 225	16,091.73	-0.1%	-0.1%	40.1%	48.6%
JASDAQ	83.42	-1.3%	-35.9%	-7.6%	-8.0%
Japan Mothers	1,090.11	-2.8%	-57.2%	-36.7%	-37.3%
Korea KOSPI Composite	1,412.22	1.2%	2.4%	57.6%	62.2%
Korea Kosdaq	610.93	1.2%	-11.6%	60.6%	56.5%
Taiwan Stock Exchange	7,259.54	1.2%	10.9%	18.2%	28.9%
Singapore Straight Times	2,813.18	2.5%	19.8%	36.2%	36.5%
Hong Kong Hang Seng	19,182.71	1.5%	28.9%	34.8%	43.6%
Hong Kong GEM	1,138.79	-1.2%	13.1%	15.2%	31.8%
China Shanghai (A-Share)	2,072.75	4.7%	69.8%	55.8%	95.1%
China Shenzhen (A-Share)	469.00	1.9%	61.7%	42.7%	91.7%
China Shanghai (B-Share)	109.02	0.5%	75.8%	44.1%	112.3%
China Shenzhen (B-Share)	355.45	1.8%	81.7%	61.7%	90.6%

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Technology, Media, Telecommunications and Life Sciences Market Activity						
NASDAQ/NYSE TMT and Life Sciences IPO Filings						
Filing Date	Issuer	Industry Sector	Size (US\$MM)	Description	Book-Runner	Co-Manager
N/A						

NASDAQ/NYSE Equity Markets: TMT and Life Sciences IPO Pricing						
IPO Date	Issuer (Exchange)	Description	Size (US\$MM)	Offer Price	Price on 11/17/06	% Change From Offer
11/16/06	Allot Communications [ALLT.US] (NASDAQ)	Designs and develops broadband service optimization solutions, enabling customers real-time visibility into network traffic	US\$71.5	US\$12.00	US\$13.00	8.3%
11/16/06	First Solar Inc. [FSLR.US] (NASDAQ)	Manufactures and designs solar modules	US\$332.5	US\$20.00	US\$24.74	23.7%

Asian Equity Markets: TMT and Life Sciences IPO Pricing						
IPO Date	Issuer (Exchange)	Description	Size (US\$MM)	Offer Price	Price on 11/10/06	% Change From Offer
11/16/06	IREP Co., Ltd. [2132.JP] (Hercules)	Provides Internet marketing services and advertisement	US\$11.8	¥400,000	¥556,000	40.0%
11/16/06	Suzhou Good-Ark Electronic [002079.CH] (Shenzhen Exchange)	Manufactures discrete semiconductor products such as rectifier diodes chips and other types of diodes	US\$30.8	RMB 6.39	RMB10.87	70.1%
11/15/06	Jooyontech Co., Ltd. [044380.KS] (KOSPI)	Manufactures personal computers and its monitors	US\$233.6	KRW 6,400	KRW14,350	124.2%

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Asian Markets: TMT and Life Sciences Convertibles						
Issuance Date	Issuer [Equity Ticker]	Description of Issuer	Maturity Date	Size (US\$MM)	Per US\$10,000 converts to	Convertible Until
11/14/06	3Soft Inc. [036360.KS]	Develops and provides various Internet related software and solutions	11/16/09	US\$9.0	1,686 shares	10/16/09
11/14/06	BI&Tech Co., Ltd. [058550.KS]	Manufactures wireless telecommunications equipment and data transmission systems	11/16/09	US\$0.7	8,620 shares	10/16/09
11/13/06	Dong Yang Semiconductor Co. [036270.KS]	Manufactures semiconductor equipment, such as laser marking and pad marking machines	11/14/09	US\$2.1	8,771 shares	11/14/09

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Weekly Highlights

International

Information Technology

- **As major software firms gathered in Barcelona for a forum, the buzzword was "interoperability". The forum was aimed at energizing what has been described as a "nascent" industry-wide alliance on software harmonization.** Called the Interop Vendor Alliance, the cooperation is aimed at allaying consumer fears that their multiple high-tech purchases in a fast-changing world may hit compatibility roadblocks. The gathering was expected to attract some 5,000 IT professionals and set the seal on an alliance of some 25 software players. Microsoft, reeling from legal problems with U.S. and EU authorities over the bundling of PC software and being in conflict with competition laws. Microsoft has brought together two-dozen corporate members to work at sharing information within their alliance. The forum comes less than a month after Microsoft, whose Windows operating system is used on more than 90 percent of personal computers, announced its biggest-ever legal pursuit of alleged fraudsters selling fake software online by filing 55 lawsuits around the world, from the U.S. to Australia and South Korea. Among the alliance members are Sun Microsystems, Software AG and Sun Microsystems, as well as Novell. Earlier this month, Microsoft and Novell unveiled an alliance to make their competing programs interoperable, thereby "building a bridge" between Microsoft's patent-protected software and Novell programs based on free, open-source

Japan

Internet

- **Rakuten, Japan's largest online shopping mall, disclosed its move to change its strategy to one that could see the group expand operations into the U.S. and Europe.** The company said the shift is seen as launching up to 30 new businesses. Analysts, however, criticized the restructuring move that would see Rakuten reduce its reliance on acquisitions as a means of expansion and set up a division focused on developing home-grown business ideas. Rakuten's services range from online shopping, travel booking and brokerages. Rakuten has also been in prolonged talks with Tokyo Broadcasting System Inc. for a possible alliance in areas such as Internet TV and e-commerce after Rakuten dropped its takeover attempt last year.
- **NEWS Corp announced that the company had begun testing its myspace.com Internet chat website in Japan.** The company said it would also launch myspace.com in Italy, with the group's top official describing Myspace as an "extremely effective form of advertising".
- **NTT DoCoMo Inc., Japan's biggest mobile phone operator, and Internet shopping mall Rakuten Inc. said they would offer online auctions for personal computers soon.** The two companies announced last year, they will also offer a social network service as part of the tie-up in which DoCoMo would take a 40 percent stake, for 4.2 billion yen (US\$36 million) in a new company, a spin-off of Rakuten's auction business. The alliance is seen as posing a challenge to Yahoo Japan Corp., the country's most popular web site and biggest online auction provider, as well as DoCoMo's

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

smaller cell phone rivals KDDI Corp. and Softbank Corp., which are offering new services such as digital TV and music downloads to attract users. Yahoo Japan is 41.0 percent owned by Softbank and 33.4 percent by Yahoo Inc.

Mobile/Wireless

- **Industry sources said that Sony Ericsson, the world's fourth-largest handset maker, plans to launch an ultra-slim, high-end Walkman camera phone in early 2007 to take on Motorola's blockbuster, the RAZR.** The RAZR's runaway success has inspired Samsung Electronics Co. Ltd. to launch a copycat line of slim phones in the summer, which helped boost the South Korean firm's handset sales and margins in the third quarter. The source said that Sony Ericsson, a joint venture between Japan's Sony Corp. and Sweden's Ericsson, would unveil its rival to the RAZR, dubbed "Ai", in March of 2007. Unconfirmed rumors about "Ai" and other new models from Sony Ericsson have also been circulating in various online blogs.

Media, Entertainment and Gaming

- **Nintendo Co. Ltd. announced its move to ship almost 400,000 units of its new Wii game console for its Japan launch in December.** Under the move, Nintendo said it will be offering four times as many machines as Sony Corp did for its PlayStation 3 debut. The Japanese video game maker also said it plans to ship 1.5 million units of its hot-selling handheld game player, the DS, in December in Japan, doubling the availability from levels in recent months for the critical year-end shopping season. Sony, which sold nearly a million units of the earlier Play Station 2 console in the first three days of sales in Japan in 2000, shipped only 100,000 PS3s for the Japan debut last week.
- **Advertising agency Dentsu Inc's reported a 32.8 percent growth in its net profit for the fiscal first half ended September compared to a year ago, with the company ascribing the results to the business generated by the World Cup soccer tournament in Germany this year.** The agency's first-half net profit went up to 13 billion yen (US\$110.2 million) from 9.8 billion yen (US\$83 million) a year earlier. Its revenue increased to a record 1 trillion yen (US\$8.4 billion) from 931.4 billion yen (US\$7.8 billion). For its television advertising sale which contributed nearly half of its advertising sales, the company reported a 0.5 percent growth to 372.9 billion yen (US\$3.1 billion). Dentsu, however, has lowered its earnings forecasts for the fiscal year ending March, saying it expects the performance of some of its affiliates to be weaker. For this fiscal year, Dentsu expects net profit of 34.5 billion yen (US\$292.5 million) on revenue of 2.1 trillion yen (US\$17.8 billion), compared with the previous forecast, net profit of 35.1 billion yen (US\$297.5 million) on revenue of 2 trillion yen (US\$17 billion).

Software

- **NEC Corporation and Sun Microsystems (Sun) announced an agreement to expand their alliance regarding HPC (High-Performance Computing) solution business in Europe and North America, a move that would enable a provision of NEC's SX series vector supercomputers with Sun Fire servers.** The agreement involves NEC sharing its extensive experience and knowledge in the HPC solution business, in particular in terms of high-end supercomputer system integration and ISV application tuning, with Sun, in order to leverage NEC's market recognition. Under the agreement, NEC and Sun said they will share the system environment for application tuning, system evaluation and benchmarking between NEC's ATCC (Advanced Technical Computing Center, Houston, Texas) and Sun's Solution Center for HPC and cooperate in

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

various ISV application-related activities. NEC and Sun are sharing market information in each region, and is aggressively developing a new customer base for optimized HPC solutions.

Hardware

- **Nippon Polaroid KK announced its entry to the flat-panel television market in Japan. With the move, the company said it sold liquid-crystal display TVs at less than half the price of major manufacturers.** The company, the Japanese arm of U.S. instant-camera producer Polaroid Corp., said it plans to undercut rivals by launching a 32-inch model with a price tag of about 100,000 yen (US\$847) and a 20-inch model for around 70,000 yen (US\$593). The company said the TVs will be sold through electronics retailer Kojima Co. from early December. Nippon Polaroid also revealed its plans to procure the TVs from a Taiwanese manufacturer, which was not named.
- **Hitachi Ltd. announced its aim to double its operating margin in four years and said that it is part of their option to pull out of flat TVs and hard disk drives if they continue to lose money.** The company said it expects to generate profits from its power systems, flat TVs and HDDs next year as well as boost profitability through March 2009. If they fail to meet targets, Hitachi said it would consider pulling out of the three businesses even as the company revealed that it could also look for partnerships and acquisitions to turn them around. According to a JP Morgan analyst Hitachi does not like abandoning businesses, but also had a track record of missing its mid-term goals. Earlier, Hitachi said it would strengthen its HDD business by increasing production capacity in China and Thailand and by increasing its line-up of new HDDs using vertical magnetic recording techniques, which increase storage. The company also said it would boost shares through bigger displays and that it would increase its line-up of liquid crystal display TVs through an existing venture with Matsushita Electric Industrial Co. Ltd. and Toshiba Corp.

Telecommunications

- **Yano Research Institute Ltd. (Yano), a leading marketing research and consulting firm in Japan, said that the size of the total fiber-optic access systems market has reached 76.2 billion yen (US\$645 million).** The market is comprised of 65.5 billion yen (US\$555 million) for PON (Passive Optical Network) systems and 10.7 billion yen (US\$90.7 million) for MC (Media Converters), respectively. The sharp increase in the number of subscribers to FTTH, which almost doubled in fiscal 2005, has apparently contributed to the growth of the market. The study said that the biggest factor that has contributed to the increase of FTTH subscribers is the lowered fees for optical IP phone service with 0AB-J numbers (conventional telephone numbers) portability and lowered monthly fees for broadband Internet access services. Most major telecommunication carriers commented that approximately 60 to 70 percent of new subscribers had concurrently subscribed to their optical IP phone services, emphasizing the cost for "FTTH and IP phone" is now lower than the cost for "ADSL and conventional analog phones," in terms of monthly basic fees. Yano estimated that the total number of FTTH subscribers would exceed 27 million by the year of 2011 with over 3 million annual net increases of FTTH subscribers each year up to 2011.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Korea

Internet

- **Daum Commerce, an affiliate of Daum Communications, announced its acquisition of a 50.5 percent stake of Daum onket, an Internet open market provider for 5.1 billion won (US\$5.4 million).** Daum Commerce is a service for businesses while Daum onket is a consumer service where individuals can list, sell and buy goods with a minimal fee. A Samsung Securities analyst said that with the acquisition of Daum onket, Daum Commerce will now able to grow in terms of size, while onket gets more liquidity for its operations. Expectations for a synergy effect are high in the market. The company is scheduled to focus on middle and high priced fashion goods on Daum Commerce, with Daum onket focusing on “frugal” fashion products, according to a company official. As of Oct. 31, Daum onket had traffic of at least 250,000 visitors a day and one million goods are listed on average. Daum Commerce plans to take advantage of onket's infrastructure to effectively enter the consumer market. Industry observers, however, said that Daum Commerce has not been spending enough on brand recognition.
- **NHN Corp., which operates the Internet portal site Naver, signed an agreement with the Korean Film Council to provide film-related content and free films online.** On the movie service section of Naver, the Korean Film Council will provide statistics, such as weekly popularity ratings, import-export figures of films, and other information from the council's film database of Korean and foreign films. NHN also acquires video contents of films that are available as free streaming services. Such films are not commercial films, but mostly short independent films and art films, which were screened at film festivals and provided with the consent of the director or the organizer of the festival during the event. Etoos, an online education site operated by SK Communications Co., announced its acquisition of a 7.1 percent stake in Cheongsol Hagwon, a private education institute that offers lectures and other college admissions-related information. The 5 billion won (US\$5.3 million) investment allows Etoos to exclusively use Cheongsol's education content. Cheongsol runs offline institutes similar to cram schools.
- **Industry observers indicated that the release of IE7 Korean Edition will not affect domestic portals, observers are confident that their users will prefer their search engine over the MSN offering.** Google and Yahoo have criticized the possible monopoly in the search engine industry with the launching of IE7, Korean Edition, which has improved security and its search engine. As a response to that concern, MS Korea signed MOUs with 25 different domestic portals working to retain relations with the South Korean portals. Korean portals expect to benefit from the added convenience for users with a new IE7 search box placement, not to mention an option given to users to freely choose existing engines in the search box. Naver looks to their existing users to switch the MSN default search window to theirs, due to familiarity. Naver is also working to release its own optimized IE7 version but isn't counting out the possibility of working with MS for now. Daum has also been actively promoting its 6.2 million cafe blogs and its UCC content with original word search service over other sites. Empas.com setup its own IE7 task force team to counter the release and is thinking of providing even more information to search engine users. Empas will also make available a download patch for its existing users to easily switch over from IE7. Nate.com is working on an installation patch that can overwrite MSN default settings when their 'nateon' and toolbar programs are being installed.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

- **Samsung Electronics announced the signing of a contract to build a research center and a factory in China dedicated to the South Korean mobile Internet platform called WiBro locally but known as Mobile WiMax overseas.** The report said the company has agreed to set up facilities in Hubei Province. Industry analysts see the report as a possible sign that Samsung may have already signed a deal with a Chinese telecom operator to commercially launch WiBro in mainland China. The company did not confirm anything but a top official mentioned a WiBro deal in China.
- **Industry sources show that the enterprise IPTV market is fast emerging as a new niche for domestic system integration (SI), set-top box and small and medium set-top box makers, with IPTV companies now moving toward banks, subway stations, public organizations and franchised stores.** Kookmin Bank and the Korea Federation of Agriculture Cooperatives adopted IPTV for customers and branches nationwide last year, and Shinhan Bank and Woori Bank built IPTV this year. Other commercial banks such as Korea Exchange and Hana Bank are said to be considering similar moves. Seoul Metro said it has decided to replace the display facilities in stations with LCD TVs next year. Commercial banks aim to upgrade in-house broadcasting and provide cutting-edge information services on exchange rates, stocks and financial service products for customers by adopting IPTV. They use satellites for in-house broadcasting, and Internet facilities such as ADSL and LAN for customer service. Subway stations plan to replace the existing small light-emitting diode screens used for route information, PDP TVs hanging on the one side of walls and screen door TVs with large LCD TVs, and they are now selecting system providers. Cheonan City Hall and Gangbuk District Hall have both adopted IPTV-based information service for residents. Waba franchise beer restaurant has also set up IPTV at 200 stores nationwide.
- **Industry sources said that domestic and multinational Internet telephony solution firms are rushing to introduce new products with multimedia convergence features, aiming to expand presence in the enterprise segment.** KT said it is working on VoIP services, adopting Session Initiation Protocol, which provides a variety of add-ons using IP Centrex. With the new service, customers including small and medium firms do not have to install IP PBX themselves. Samsung Electronics and Avaya entered a cooperation to develop a next-generation IP solution, which targets small businesses with some 500 employees. The new solution combines routing, switching, IP telephony and security, which is designed to integrate voice and data networks of a business. LG-Nortel has teamed up with Microsoft to introduce an IP handset, which integrates communications features, including email, instant messaging, mobile VoIP, voice and videoconferences, over a single platform. According to market research firm IDC Korea, the domestic VoIP service market is expected to grow 54 percent annually over the next five years, and is estimated to be worth around 250 billion won (US\$267.2 million) this year and 1 trillion won (US\$1 billion) in 2009. The VoIP equipment market is forecasted to be worth around 263.5 billion won (US\$281.6 million) in 2009.
- **Google Inc. said it has decided to work with Daum Communications as a partner for its move to expand its presence in the country's online advertisement sector.** Under the alliance, Nambu Communications Co., a subsidiary of Daum Communications Corp., is seen as helping Google's keyword ads operation. Other details were not disclosed and Daum officials declined to comment. Google said in a statement that it selected the South Korean firm and considered its accumulated know-how in online ads, marketing and high-quality service it provides to clients. The deal follows rumors that Daum Communications could end its business ties with Overture in its advertising business based on the cost-per-click billing system, because the company has not extended a contract that is to expire at the end of the year.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

- **Gmarket continued its record-breaking run in the third quarter, with its total amount of transactions on its marketplace placed at 573 billion won (US\$612.5 million) in the third quarter, about double the amount from the same period last year.** The company also announced the number of its registered users increasing from 9.2 million to 10.1 million. Gmarket has expanded its business from online yard sales to celebrity-owned clothing shops. A pioneer of the so-called open marketplace business, Gmarket started in 2000 with an initial capital of 1 billion won (US\$1 million). It allows any member to open online shops to sell items. In the third quarter, it is believed to have outperformed its rival Auction, to be the No.1 online seller in Korea. Auction was ahead of Gmarket until the summer, with 39.6 billion won (US\$42.3 million) of sales in the second quarter to Gmarket's 36.8 billion won (US\$39.3 million). But Auction's sales have remained stagnant since last year and profits have decreased, while Gmarket has continued double-digit growth quarter by quarter. Gmarket's revenue and net profit were 41.2 billion won (US\$44 million) and 5.4 billion won (US\$5.7 million) in the third quarter, respectively. In June, the company successfully sold stock worth US\$139 million in an IPO on the NASDAQ, making it the fifth South Korean firm listed on the tech-loaded U.S. stock market. The firm raised about US\$90 million in the process by issuing new shares, while the rest of the money went to the owners of the old shares.

Mobile/Wireless

- **Samsung announced the release in the U.S. of a slim phone called BlackJack enabled with HSDPA technology.** The company said the device will be sold through the U.S.'s largest wireless carrier Cingular Wireless. Samsung said it expects brisk sales for its first phone, which combines HSDPA and smartphone technology, to hit the U.S. market. The phone is capable of data transfers of up to 1.8 Mbps, five times faster than existing WCDMA, which is needed by users in downloading multimedia content such as videos and music files. It has the Windows Mobile 5.0 Smartphone edition operating system and a 2.3-inch QVGA LCD screen, a 1.3 megapixel camera, a camcorder, MP3 player, external memory, a file viewer, Bluetooth connectivity, and mobile printing.
- **Motorola Inc. announced that it will open a research and development (R&D) center in South Korea this week to develop technologies for ubiquitous sensor networks (USN).** USN refers to a network in which all electronics devices can be connected without wires. It can be used in various fields such as home automation and environmental monitoring in areas beyond human reach. The move follows the signing of a deal in the summer between the U.S. company and the state-run Electronics and Telecommunications Research Institute (ETRI). Details of the deal have yet to be disclosed, but a company official said the South Korean government will provide financial subsidies for its research activities.
- **Reports indicated that South Korean mobile operator LG Telecom (LGT) has been fined 5.2 billion won (USD5.5 million) for offering illegal handset subsidies to entice users.** According to TeleGeography's GlobalComms database, the Korea Communications Commission (KCC) and Ministry of Information and Communications (MIC), in conjunction with the Korean Fair Trade Commission (KFTC), have taken a hard line on mobile service pricing, particularly regarding subsidizing handsets. In an about-turn from March 2006, the MIC began allowing companies to subsidize handsets for the first time. SK Telecom, KTF Corp and LGT are now allowed to offer financial incentives at rates set by the MIC, with the subsidies allowed to be worth up to 200,000 won (US\$ 208). The rates may be offered to both existing users and customers switching from a rival network, but the rates must first be approved. Less than a month after relaxing the rules, the MIC fined all three operators a total of 10.8 billion won retroactively, for subsidizing before the new scheme was approved.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

- **Helio, a venture of EarthLink Inc. and SK Telecom, announced its partnership with Google Inc. and Samsung Electronics Co. to deliver a new phone with features such as a friend locator service and driving directions.** Helio, a wireless provider, said its customers would be able to find out their current location and look up traffic conditions or directions to specific addresses by using Google maps and satellite positioning technology in Samsung's Drift phone. The phone, which sells for US\$255, also gives users the option to look up the location of nearby friends, or to have their own location show up on their friend's cell phone. Sprint Nextel Corp.'s Boost Mobile unit, another youth-focused mobile service, also plans to announce details of its own location-based service next week.

Media, Entertainment and Gaming

- **With more than 14 million customers, NCsoft announced that Lineage II, has reached 100,000 active players in North America and Europe.** The title started as a cult favorite of many massively multiplayer online (MMO) gamers in North America and Europe and continues its success as the premiere player-versus-player (PvP) online role-playing game for the elite PvP player. Lineage II was launched in North America in 2004 as a modest success. The game has since built itself into one of the top MMOs in the western markets, with a 25 percent growth rate in 2006. NCsoft credits the growth of the game to regular updates and free expansions to the product, and delivering features requested by players.
- **Samsung Electronics said that it has formed a deal with TVA, a cable TV service provider of Brazil's largest media group Abril, to launch Wi-Bro service.** Under the arrangement, the two companies will kick off commercial services in San Paulo and Kujichiba in April next year, and expand the coverage into four major cities in three years. They already started a test service in May this year. Samsung Electronics also plans to co-launch commercial services with Omnivision in Venezuela. The company expects the deals in key Latin American markets to help expand into the entire region. Samsung Electronics plans to set up 35 base stations and system equipment, as well as provide Wi-Bro modems in San Paulo and Kujichiba. It already formed deals with Sprint of the U.S., KDDI of Japan and TI of Italia.
- **Only 13.5 percent of video files were self-made products by users among 4,500 inspected by the Copyright Deliberation and Conciliation Commission from July to October, while the rest were copies of TV shows, movies, music videos and animations.** This situation has spurred major portals, TV broadcasters and the government to talk with each other on setting up guidelines for copyright protection of short video clips. According to Koreanclick, an Internet research firm, Daum's video sharing service TV Pot drew 6.7 million viewers in August, and Naver's Play had 5.6 million. Officially, the portals are discouraging users from sharing images that violate copyright law and they frequently remove such files with or without requests from copyright holders. However, due to the massive amount of file transactions, the pirated videos sometimes remain untouched. The friction between video sharing sites and conventional media is also ongoing in the U.S. Google disclosed that it is negotiating with media groups over the issue. There have been rumors that Google has already set aside US\$500 million to defend against copyright claims from movie studios.
- **Nexon announced the signing of a strategic partnership with MTV Networks for the global co-publishing and promoting of online games, music and other multimedia contents.** Under the agreement, MTV will air commercials of Nexon games on its TV and web broadcasting channels, and Nexon will help MTV establish Internet community sites in Asia and sell online items through them. Earlier this year, Nexon set up a U.S. subsidiary and began to service multiplayer online games,

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

which have become hits in Asia. Targeting a young audience, Nexon's games 'Maple Story' and 'Kart Rider' have some 30 to 50 million worldwide users. MTV Networks is a major music and entertainment broadcaster with 130 channels on air worldwide, such as MTV Music Television, Nickelodeon and Comedy Central. It has also started operating various Web community sites such as Neopets.com and Shockwave.com, which it wants to expand to Europe and Asia in a partnership with Nexon. In a separate move, Nexon said that it is converting its PC-based games into models that can be used on the Xbox 360 and Nintendo DS consoles. It also said that it is producing TV animation films that feature game characters from Maple Story and Kart Rider.

- **Blizzard Entertainment announced that 'World of Warcraft : The Burning Crusade', the highly anticipated expansion to the world's leading subscription-based massively multiplayer online role-playing game, 'World of Warcraft', will be available in stores by January 2007 in North America and Europe.** According to the company the expansion will be available in a similar time frame in Korea, Australia, New Zealand, and Singapore. The availability for mainland China and the regions of Taiwan, Hong Kong, and Macau will be announced in the near future. In addition, Blizzard today announced that the subscriber base for 'World of Warcraft' has reached 7.5 million players worldwide.

Hardware

- **KT Corp. announced the introduction of a laptop computer model incorporating wireless Internet WiBro marking the first introduction of WiBro-equipped laptop computers.** The laptop computers are Samsung Electronics Co.'s NT-Q35 model with a LCD panel measuring 12.1 inches diagonally. KT said it has been stepping up efforts to unveil WiBro-enabled devices. It said that more devices will be launched over the next few months. In a separate development, KT opened an Internet computing center (ICC) in south Suwon in September this year. The company aims to open the country's first utility computing center, which has become a new mantra in the industry. Business customers are said to be keeping a close eye on the center, which represents the company's infrastructure strategy.

China

Internet

- **China Southern Airlines announced a surge in its Internet ticket sales in 2006. The company claims it was the first airline in the country to sell an Internet e-ticket in 2000.** From January to September 2006, sales of China Southern Airlines' e-tickets reached 10.4 billion yuan (US\$1.3 billion). Airline e-ticketing by China Southern contributes at present, some 32 percent of total e-ticket volume in the Chinese aviation industry. From March 28, 2000 when China Southern Airlines first launched its e-ticketing program through March 2005, the airline has sold more than 4 billion yuan (US\$508.1 million) in Internet airline tickets.
- **Huicong (HC), a B2B online service provider, announced the launching of a "Care for Enterprise" plan to provide a full range care for enterprises.** Under HC's "Care for Enterprise", each company is regarded as an individual person, with the plan offering a package of care, which includes building an accumulated score management system, integrating online stores, enabling instant communications, blogs and forums. The service is applicable for all online and offline services and products of HC. Users of these products can accumulate online virtual money whose value can be used in exchange for gifts or advertising positions. HC is one of the largest B2B service providers in

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

China, with more than 2.8 million active companies online. Most of these companies are classified as either medium or small.

- **Online game operator The9 released its unaudited financial results for the quarter ended September 30, 2006, showing net revenues for the third quarter of 2006 dropping by 9 percent quarter over quarter, but going up 26 percent year over year to US\$29.5 million.** The company posted a 24 percent drop in net income for the third quarter of 2006 to US\$8.1 million from US\$10.7 million in the second quarter of 2006. For the third quarter of 2006, The9 reported a 9 percent decrease in its total gross revenues to US\$31.1 million from US\$34.3 million in the second quarter of 2006. Its gross profit for the third quarter of 2006 registered a 13 percent decline to US\$13.6 million from US\$15.7 million in the second quarter of 2006. For the third quarter of 2006, operating expenses declined 18 percent to US\$5.6 million from US\$6.9 million in the second quarter of 2006. As of September 30, 2006, the company's total cash and cash equivalents balance was US\$96.4 million, compared to the total cash and cash equivalents of US\$83.2 million as of June 30, 2006. The9 ascribed the growth mainly to the proceeds from the sales of prepaid cards, offset in part by prepaid royalty payments related to Blizzard Entertainment's World of Warcraft's (WoW) China operations and capital expenditures for WoW in the third quarter of 2006.
- **Baidu.com disclosed plans to cooperate with six major anti-virus firms from both home and abroad to launch an online anti-virus service, which will be the largest third-party anti-virus service platform in China.** The six anti-virus companies are McAfee, TrendMicro, Ahn, Kingsoft, Jiangmin and Antiy Labs. Under the alliance, the companies will not only provide free virus diagnoses and online anti-virus services on the new platform but will also offer anti-virus software for users to download. More firms are expected to join the program as Baidu pursues more talks with other anti-virus service providers.
- **Industry sources said the Chinese-language version of online encyclopedia Wikipedia has been unblocked by Beijing authorities after a year.** The move came a month after China began opening up access to the English-language version of Wikipedia, an "open source" encyclopedia that allows users to edit the online information. The action also follows Baidu.com launching an online encyclopedia modeled on Wikipedia. Entries on "Baidupedia" are, however, censored by the Chinese government. The Chinese-language version of Wikipedia, which relies on voluntary users and contributors to ensure its neutrality and objectivity, was very popular until the State blocked access to the site late last year.
- **Industry sources said that News Corp, which earlier disclosed its search for a local partner in a bid to launch its popular MySpace Internet social network in China, revealed that it is in early talks with local blog companies Bokee.com and BlogCN.com.** News Corp announced that it could launch a version of MySpace in China during this fiscal year if it found the right joint venture partner. Faced with an increasingly competitive market, Chinese blogging companies are in need of foreign capital. Bokee has attracted 5 million yuan (US\$635,000) in seed funding as well as US\$10 million in venture capital from six U.S. and Chinese firms. Another blog, Blogbus.com, received between US\$3 million and US\$5 million from Japanese venture capital firm JAIC and Japanese ad company Cyber Agent, in Blogbus's first round of external investment. Local sources said the number of bloggers in China is expected to hit 60 million by the end of this year and 100 million by the end of 2007.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Media, Entertainment and Gaming

- **Sina.com announced entering a strategic partnership with Shanghai-based Dragon TV. Under the partnership, the two companies said they will work on various fields covering news content and marketing activities.** The partnership will see Sina.com providing its network platform and information resources for Dragon TV, including network display, information support and online interactive activities. The agreement also indicates that in the future, Sina.com will eventually be the sole portal website for Dragon TV's affiliated programs, fashion and entertainment services.
- **CDC Corporation announced that it has entered into a definitive agreement to sell US\$168 million of senior exchangeable convertible notes due 2011 to a total of 12 institutional accredited investors in a private placement.** The company said the proceeds of the placement, placed with its cash balance, will allow it greater flexibility to pursue expansion plans. These plans include acquisitions, joining new vertical markets, and enhanced focus on R&D. The senior exchangeable convertible notes carry a 3.8 percent coupon, which is payable quarterly. Upon a qualifying IPO of either CDC Software or CDC Games, the notes become exchangeable into that company's common shares at an exchange price determinable from the IPO price of those common shares. If CDC Software or CDC Games does not complete a qualifying IPO within two years from the issue date of the notes, the notes become convertible into CDC Corporation's common shares at an initial conversion price of US\$10.3 per share which represents a premium of approximately 60 percent to the company's 10-day average closing price. The terms of the notes also include customary anti-dilution adjustments and registration rights. The company said it aims to use the proceeds from the transaction for acquisitions made at both CDC Software and CDC Games, as well as game development, R&D investment and for other general corporate purposes.

Mobile/Wireless

- **Wireless value-added services company Hurray! posted its unaudited financial results third quarter ended September 30, 2006, with the company reporting a general quarter-on-quarter decline.** Hurray! reported a 1.7 percent decline for the third quarter ended September 30, 2006 in its total revenues of US\$18.0 million, from over US\$18.3 million for the preceding quarter, and a 9.2 percent increase from US\$16.5 million for the third quarter in 2005. The company said its total wireless value-added services revenues went down by 1.1 percent to US\$16.4 million for the third quarter of 2006 from US\$16.6 million in the previous quarter and growth of 8.0 percent as compared with US\$15.2 million in the third quarter of 2005. Its 2.5G services revenues went down by 9.6 percent to US\$7.4 million for the third quarter of 2006 from US\$8.1 million for the previous quarter and a decline of 20.3 percent as compared with US\$9.2 million for the third quarter of 2005. Recorded music revenues grew to US\$1.5 million, as compared with US\$1.4 million the previous quarter.
- **Beijing Liandong Youshi (UMPay) announced that China Mobile has reached an agreement with 19 domestic banks to jointly promote a mobile phone SMS-based banking service called Yin Xin Tong.** With the service, mobile phone users will have access to financial data by way of cell phones and wireless POS through SMS or by logging in through GPRS and WAP. The agreement covers partnerships with banks like the Industrial and Commercial Bank of China, China Merchants Bank, Huaxia Bank, Industrial Bank, and China Construction Bank. The agreement enables the banks to acquire a mobile phone short message and group message-sending terminal from China Mobile to provide financial services to their clients. According to UMPay, the service will initially be free, with a charging system to be released soon. UMPay is an affiliate of China Mobile, the company that takes

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

care of its mobile banking service, is a 50-50 joint venture between China Mobile and China UnionPay.

- **Suning, an electrical appliance retailing company announced the signing of a strategic cooperation agreement with China Mobile, for a series of exclusive agreements.** The cooperation covers the shifting of Suning's products to 3C in a bit to earn bigger profits for the company. 3C refers to Computing, Communications and Consumer electronics products and companies. China Mobile indicated that the cooperation will mainly focus on terminal construction, product ordering, market promotion, data sharing, analysis and service. In addition, the companies said they will work on designing and constructing the sales of terminal, and jointly develop value-added services and one-stop services for mobile phone users. Analysts see the alliance between Suning and China Mobile as a sign that Suning has moved from an electronic retailer to full a 3C retailer.

Hardware

- **Haier, an electronic appliance manufacturer announced entering an agreement with Intel to jointly set up an Innovation Product R&D Center aimed at improving Haier's personal computer strategy.** Haier said its PCs are its second-largest growth driver for the group, with home appliance service remaining No.1. The agreement will also see Haier and Intel making investments in the development of game-ready computers. The R&D center will be composed of a design team from both parties.

Semiconductors

- **Semiconductor Manufacturing International Corp revealed that it has filed a lawsuit against its Taiwan rival, Taiwan Semiconductor Manufacturing Co (TSMC) for alleged unfair competition.** In the latest conflict, SMIC demanded an injunction to stop TSMC's alleged infringement, a public apology and unspecified compensation. In a stock exchange announcement, SMIC said TSMC had made a "concerted effort" to infringe on SMIC's legal rights unfairly, "rather than compete fairly in the marketplace". A spokesman for TSMC said the company planned to respond shortly. The suit is the latest development in a dispute over patent usage and trade secrets between the chipmakers. Last month, TSMC alleged that SMIC poached more than 100 of its "key employees" to obtain confidential company information. In late August, TSMC filed a lawsuit in a California court, charging SMIC for breaking an agreement last year that settled a patent dispute and alleged theft of trade secrets. Shanghai-based SMIC is China's largest chip foundry by capacity. It operates semiconductor-manufacturing facilities in Shanghai, Tianjin and Beijing.

Ventures/Investments

- **According to the China Quarterly Capital Report, venture capital activity in companies with headquarters in mainland China posted a record-breaking year, with 54 deals and investment totaling some US\$361.1 million in the third quarter of 2006.** The report released by Ernst & Young and Dow Jones VentureOne reported a 16-deal rise in the deal flow from the same quarter last year, with capital investment rising by 47 percent from the same period. By industry, IT is still the stronghold for venture capital activity in China in the third quarter, with US\$221.8 million invested in 34 IT companies in the third quarter. The growth in IT investment represented an 85 percent growth in capital and an increase of 9 more deals than a year ago. Within the IT industry, the Internet-focused information services segment continued to draw the most activity, with 22 deals and US\$136.2 million invested. This growth stands for 13 more deals and US\$71.3 million more capital than was invested in the third quarter of 2005. KooXoo, a category message search engine based in Beijing, holds the largest information services deals of the quarter by getting a US\$10 million second round. The largest

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

deal overall was the US\$35 million later-stage financing for Advanced Micro-Fabrication Equipment, a semiconductor company based in Shanghai.

- **IBM announced the launching of a major initiative to bring IBM's global information technology services expertise and capabilities to China.** As part of this initiative, a top company official said that IBM will work with the country's Ministry of Education to introduce a services science curriculum within Chinese universities. Under the plan, the company said it will also coordinate the development of a pilot program with China's Ministry of Health to use IT to improve the quality of regional medical services throughout the country and expand industry-specific business services through the use of Services-Oriented Architecture (SOA). The expansion is seen as boosting the focus within the China Research Lab on services linked to small and medium-size businesses.
- **China 3C Group announced the signing of an agreement of intent to acquire Shanghai Joy & Harmony Electronics Company.** Under the agreement, China 3C will begin due diligence of Shanghai Joy and Harmony, a consumer electronics retail chain focusing on the eastern China market. The chain has established 180 retail stores in Eastern China since it was founded in 1995. The completion of the acquisition will enable China 3C Group to acquire more than 800 retail stores. No other details of the terms of the agreement were revealed.

Telecommunications

- **China Telecom announced the testing of its ADSL2+-based Super ADSL service, which it will launch soon even as the company has not released details about when the service can be commercialized.** Industry sources say, however, that most telecom companies in major cities like Beijing, Shanghai, Nanjing and Guangzhou have no plans yet to launch ADSL2+ in the near future. China Telecom is a major communications service operator in the country.
- **Market sources said that Huawei Technologies, China's largest telecommunications equipment maker, will make a higher counter-offer to buy out its partner 3Com in a mainland Internet infrastructure venture.** The offer followed the move by the U.S. firm to place a bid to acquire its stake. Computer network equipment maker 3Com offered to buy the 49 percent stake in Huawei-3Com owned by Huawei. Sources said 3Com's bid valued the venture at US\$2 billion. According to the U.S. Securities and Exchange Commission, Huawei is required to respond within three days with an offer that is at least 2 percent higher on a per-share basis. Huawei had originally valued the venture, which makes and sells equipment that facilitates the transfer of data over the Internet, at US\$1.5 billion to US\$2 billion, sources said. 3Com is desperate to take control of Huawei-3Com because it has almost no presence in the mainland market beyond the joint venture. 3Com said in the SEC filing it is open to a negotiated agreement separate from a bidding process.

Taiwan

Mobile/Wireless

- **RF Micro Devices (RFMD) announced a cooperation with Taiwan-based MediaTek to create Bluetooth enabled EDGE and GPRS mobile phone reference designs with RFMD's SiW3500.** The SiW3500 is described as a fully qualified system-on-chip for Bluetooth technology with excellent RF performance and low power consumption. MediaTek is currently the world's largest chipset supplier of CD-ROM, DVD-ROM, CD-RW, Combi, DVD-ReW and DVD player. It is also the leading wireless communication chipset supplier in China.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

- **Industry sources said that Taiwan's Hon Hai Precision Industry, the world's biggest contract electronics manufacturer, has plans to produce mobile phones for Apple Computer.** Apple was planning to launch the phones with iPod functions during the first half of next year, with Hon Hai making 12 million handsets. Separate units of the Hon Hai group already make iPod digital music players for Apple and produce mobile phones and components for leading brands Nokia and Motorola. No statement was gathered from Hon Hai.

Hong Kong

Media, Entertainment and Gaming

- **i-Cable Communications' Cable TV, Hong Kong's largest pay-television operator, announced that is considering slashing its basic tariffs after losing out to rival PCCW Now TV in a bid to retain the broadcasting rights of top-rated English Premier League (EPL) football matches for the three seasons starting next August.** i-Cable Communications described its move as creating savings of at least HK\$200 million (US\$26.6 million) in production costs in each of the next three years. Now TV, which has 608,000 subscribers, as of the end of June, compared with Cable's 770,000, said it is engaged in exclusive negotiations with FA Premier League, the EPL organizer, to finalize an agreement over the broadcasting rights of all its 380 games per season. Market sources said PCCW beat Cable TV with a bid of more than US\$200 million, well above Cable TV's offer and more than twice the US\$100 million it paid for the three years through next May. In its three-year battle with Now, Cable TV has lost many key channels to the upstart but still owns the rights to carry the Spanish, German and Italian leagues.
- **Telefonica announced that it would acquire 8 percent of PCCW Ltd., with tycoon Li Ka-shing's foundation, assuming a 12 percent stake for a combined US\$1 billion.** The deal sees China Network Communications Group (CNC) holding some 20 percent stake as PCCW's largest shareholder. Spain's Telefonica and the Li group said they are buying their stakes from a consortium led by Hong Kong financier Francis Leung, who agreed in July to pay US\$1.1 billion for the nearly 23 percent controlling stake in PCCW held by Richard Li's Pacific Century Regional Developments (PCRD). Earlier reports indicated Telefonica had been looking to strengthening its alliance with CNC with its plan to raise its share in CNC from the current 5 percent stake to 9.9 percent. In a related development, Telefonica, CNC and PCCW announced their signing of an agreement to jointly develop telecom and media businesses

Singapore/Malaysia/Philippines/Indonesia

Mobile/Wireless

- **Indonesian mobile phone service provider PT Telkomsel – a subsidiary of state-owned firm Telkom – announced that it looks to gain 7 million new customers next year.** The company president noted that, industry-wide, there would be about 10 to 15 million new cellular phone subscribers next year. Telkomsel said it expects to get about 7 million of that number. Telkomsel, 35 percent owned by Singapore Telecommunications Ltd, is Indonesia's largest mobile service provider with more than 50 percent of the domestic market. The company said it is aiming to increase its total subscriber base to 41 million from a projected 34 million by the end of this year. In September, Telkomsel pioneered the country's 3G cellular services. The company plans to invest about 3 trillion rupiah (US\$326 million dollars) within three years as it expands its 3G coverage across the country.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Telecommunications

- **Malaysia said it will issue two licenses to telecommunication operators next year to provide fourth generation wireless high speed Internet services.** The country's minister for energy, water and communications said the government hoped the winning bidders will roll out the WiMAX network nationwide in 2007. The government in July cancelled the original tender for the WiMAX 2.3 gigahertz spectrum, saying that the specifications were not in line with the ministry's policy. A government official said the Malaysian government hopes to issue up to four licenses. The original tender had attracted bids from 17 companies, including Malaysia's top communications firm Maxis Communications and DiGi Telecommunications Sdn Bhd.

Internet

- **Pacific Internet Ltd. (PacNet) reported a 10 percent rise in its third-quarter net income to US\$1.5 million in the Philippines from US\$1.3 million in the same period last year, on revenue of US\$6.8 million, up 98.6 percent from US\$3.4 million.** The company said its three-quarter net income went up by 29 percent to US\$5.3 million. The Philippines is PacNet's second-largest consumer market, with 66,629 subscribers to its broadband, dial-up and IP services, as well as 94,211 subscribers in Singapore. In the IP services market, PacNet has 2,621 accounts in the Philippines, the third-largest after Australia (28,253) and Hong Kong (3,523). It also has a direct presence in Singapore, India, Thailand and Malaysia. In the corporate segment, it has 69,842 accounts in the Philippines, 109,997 in Singapore, 85,081 in Hong Kong and 78,085 in Australia. PacNet also has a direct presence in Malaysia, Thailand and India.

United States/Canada

Internet

- **Microsoft announced the launching of its Office Live suite of online business software in the U.S. and said it would release test versions in Europe and Japan next week.** The Internet-based suite of applications made for small businesses were available in a free "Basics" version and in an upgraded "Essentials" package costing US\$19.9 monthly and a "Premium" version for US\$39.9. Microsoft said that free beta, or trial, versions of Office Live would be available in France, Britain, Germany, and Japan this month. The company described the suite of software as a tool for businesses to create web sites, attract customers and manage their affairs. In a related development, Toshiba and Sony said they would put Internet links to Office Live on notebook computers and laptops beginning next year.
- **Google, Yahoo and other Internet companies under the NetCoalition.com are asking the Securities and Exchange Commission to review fees that U.S. stock exchanges charge for market data.** The Washington-based coalition declared that they will petition the SEC in a bid to halt recent fee increases that the New York Stock Exchange (NYSE) imposed for displaying trading data from its Archipelago electronic market. NetCoalition.com will ask the SEC for a comprehensive review of market data issues. Internet companies are reportedly willing to license a certain amount of information but express concerns that without a policy scheme from the SEC they will be at the mercy of the exchanges and may ultimately have to change their free-access models. Yahoo Finance, AOL's Money and Finance, Forbes.com and other financial web sites have already stopped displaying real-time quotes from electronic marketplaces owned by the NYSE and the NASDAQ Stock Market because of fee increases. Time Warner's AOL unit, which is not part of NetCoalition.com, pulled the real-time data after the exchanges started charging US\$1 per month per viewer of their data. AOL

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Money and Finance said the increase made it "prohibitively expensive" to offer the information free. The NASDAQ and NYSE did not release any comments.

- **Motorola Inc. announced that it is buying Netopia Inc., which provides DSL gear and routing equipment to telecommunications companies, for US\$7 per share, or US\$208 million in cash.** Netopia's products include wired and wireless modems and routers. Motorola said the deal will help boost its Internet Protocol TV offerings and complement its video, voice and data portfolio. It was the third acquisition announced by Motorola in the last eight weeks following agreements to buy Symbol Technologies Inc., a maker of portable bar code scanners and customized handheld computers, for US\$3.9 billion in September and Blackberry rival Good Technology Inc. for an undisclosed amount earlier this week.
- **Yahoo announced its acquisition of a community-based website called Bix.com, a site that allows users to arrange contests and rate each members photos and videos online.** Analysts see the acquisition as an attempt to compete against social networking sites like Myspace and Facebook, by integrating Bix with Yahoo! Groups, social network, Yahoo! 360 and photo sharing site, Flickr. The CEO of Bix said that the transaction will bring to the Bix community the web's largest audience, referring to the 500 million users per month on Yahoo-branded services worldwide. The companies did not disclose financial terms of the deal.

Media, Gaming and Entertainment

- **EMI Music announced that it has agreed to license music videos by its slate of recording artists to an online video portal and on-demand cable service operated by Gotuit Media.** Under the multiyear agreement, companies will share revenue from advertising on Gotuit.com. With the deal, only U.S. computer users who visit the site will gain access to EMI's videos. Universal Music Group already licenses videos to Gotuit.com. Unlike the other major recording companies, EMI has not yet forged a licensing deal with YouTube, now owned by Google. Industry observers said that EMI Music's deal with Gotuit is the latest example of how recording companies are seeking ways to generate revenue from licensing their content to online video sites. No other details of the agreement were disclosed.
- **YouTube announced that it will show clips of NHL games, its first agreement with a professional sports league.** The agreement will allow users to see video highlights of this season's NHL regular-season games, within 24 hours of the original broadcast. The service will become available this month. The NHL also will have its own web channel on the site. The deal allows revenue sharing from advertising, with YouTube helping identify and remove illegally posted NHL clips. Earlier, Google has completed a US\$1.6 billion acquisition of YouTube.
- **MP3.com announced reopening its servers, nearly a decade after it helped usher in the online music era by letting largely unknown bands submit files for computer users to download.** The site was acquired by San Francisco-based CNET Networks in 2003, and has recently undergone a redesign. CNET only bought the Internet domain, not the library of more than one million tracks that bands had uploaded to MP3.com since 1998. The re-launched site offers as much as 100 megabytes of storage space for audio tracks and unlimited space for videos, free of charge. The revamped site gathers in tracks and videos by independent and unsigned bands for visitors to download directly from MP3.com. The company said it is looking to compete with News Corp's MySpace.com, which has become the favorite site for independent and little-known bands to connect with fans.
- **TiVo announced its plans to widen its digital video recording service later this year so users of its set-top boxes can download videos from the Internet and watch them from their TV sets.**

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

The move is part of the company's bid to be a major media conduit. TiVo's new broadband offering, however, will work only with downloaded videos that are not copy-protected, such as most user-generated clips and many video podcasts. Feature films and videos purchased from online stores will not be supported, though company officials said they are seeking to offer such protected content in the future. The service feature will be implemented by the end of this year through an upgrade to the TiVo Desktop software. The software is currently being used by some subscribers to view photos from the web and listen to Internet radio. TiVo said it would take downloaded videos that had been placed into a computer's TiVo folder and automatically convert them into an MPEG-2 video format, so videos could be viewed on TVs and searchable via TiVo boxes. The video formats that will be supported are QuickTime, Windows Media Video and MPEG-4. The software will cost US\$24.9 for new users and will be a free upgrade for existing users. TiVo also will introduce another new feature that lets subscribers share their homemade movies with friends or family by setting up a personal "channel" to send their videos to the TiVo boxes of those who have agreed to be part of the private network.

- **Universal Music Group revealed that it sued MySpace.com, claiming the online social-networking hub illegally encourages its users to share music and music videos on the site without permission.** The recording company is seeking unspecified damages, including up to US\$150,000 for each unauthorized music video or song posted on the web site. The lawsuit is the latest legal move in a broadening conflict between established media against Internet companies whose technology is challenging the traditional ways music, video and other content are distributed and consumed.

Software

- **Sun Microsystems said it has gradually transformed its Java technology into an open-source software project available for free on the Internet.** The announcement represents one of the largest additions of computer code to the open-source community. The move represents a great change for a company that had once strongly protected the source code used in 3.8 billion mobile phones, supercomputers, medical devices and other gadgets. Sun said it is making nearly all of Java's source code available under the GNU General Public License. The same type of license also covers the distribution of the core, or kernel, of the popular open-source operating system Linux, which competes against Microsoft's Windows operating system. Making Java an open-source project allows programmers from around the world to examine, modify, fix bugs and create new features in Java's underlying code. Analysts said the decision of the company is seen as possibly extending the life of Java, and boost business for the company.

Hardware

- **Hewlett-Packard once more became the world's largest personal computer maker after posting net income of US\$1.7 billion, with its sales growing by 7.2 percent to US\$24.6 billion.** The results, which helped HP grab the No. 1 slot from Dell, went beyond the forecasts of analysts. HP said its PC shipments went up by 10 percent and earnings in the unit climbed by 68 percent to US\$336 million, widening profit margin to its highest level in four years. With US\$91.7 billion in revenue for the year, the company overtook IBM as the world's largest technology company. With sales of notebook computers posting a growth of 24 percent, HP has also overtaken Dell as the world's largest computer vendor. HP pointed to its strategy of selling through a network of more than 140,000 retailers including Wal-Mart Stores, rather than relying on online or telephone sales.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Europe

Mobile/Wireless

- **3 Group, a provider of mobile broadband in Europe, announced a new service, called the X-Series, that combines two new phones with all-you-can-eat mobile broadband in markets that have been dominated by pay-per-click or metered-download plans.** The company did not release the exact price of its new service, but plans to do so by year's end. 3's new plan has some powerful partners, which includes among them Yahoo, eBay, Google, Skype, Orb, and Sling, which lets users of high-speed handsets download and watch TV they recorded at home. Industry observers see the Skype partnership as one of 3's more intriguing moves, because it lets users make phone calls over their cell phone's Internet connection using VoIP technology, paying nothing for the call. In the U.S., Sprint, Verizon, Cingular, T-Mobile, and Helio offer mobile broadband plans that range from limited to unlimited access, with an array of technologies running them.
- **Britain's Vodafone Group Plc announced that it expected strong growth rates at its U.S. venture with Verizon Wireless to be maintained in the near term and was in no hurry to sell its 45 percent stake.** Vodafone's top executive disclosed to investors that its venture with Verizon Communications was growing at 18 percent and its value was rising. Vodafone said its present dividend policy of paying out 60 percent of earnings was also unlikely to change. A top official said that Vodafone was also likely to be extremely choosy when it came to acquisitions.

Information Technology

- **IBM announced that it has secured a 9-year deal to provide e-mail management services to Banco Sabadell, one of Spain's largest financial services groups.** Under the deal, which was placed at about US\$9 million, IBM will manage the hardware and software that supports e-mail services for 10,000 of the bank's employees. The deal adds to a US\$137 million agreement signed last month under which IBM will manage all of Banco Sabadell's central IT operations. The bank said its outsourcing initiatives are part of its Proteo program, a company wide IT modernization effort. Under Proteo, the bank is also looking to digitize its paper archives, automate business workflows, and deliver personalized content to its customer-facing web sites.

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 12 November- 18 November 2006

Other Economic Data

Currency Exchange Rates

Currency	Units	Current Rate (on 11/17/06)	% Change 1 Week Ago	% Change 1/1/2006	% Change 1/1/2005	% Change Last 12 Mth.
Japanese yen	¥/US\$	117.7525	0.1%	0.0%	14.7%	-0.9%
Hong Kong dollar	HK\$/ US\$	7.7866	0.1%	0.4%	0.2%	0.4%
Chinese renmenbi	RMB/ US\$	7.8718	0.1%	-2.5%	-4.9%	-2.6%
Singapore dollar	S\$/ US\$	1.5566	0.1%	-6.4%	-4.6%	-8.4%
South Korean won	KRW/ US\$	938.9000	0.5%	-7.0%	-9.3%	-9.2%
New Taiwan dollar	NT\$/ US\$	32.9305	0.4%	0.3%	3.8%	-2.1%
Australian dollar	US\$/A\$	0.7690	0.3%	4.9%	-1.4%	4.8%
New Zealand dollar	US\$/NZ\$	0.6651	-0.1%	-2.7%	-7.4%	-3.3%
Philippine peso	PHP/ US\$	49.9600	0.1%	-5.9%	-11.2%	-8.1%
Euro	US\$/€	1.2829	-0.1%	8.3%	-5.4%	9.2%
British pound	US\$/£	1.8946	-0.8%	10.0%	-1.2%	10.2%

Fixed Income Prices and Yields

Note	Currency	Current (on 11/17/06)		1 Week Ago		4 Weeks Ago	
		Price	Yield	Price	Yield	Price	Yield
US 30-year	US\$	4.74%	96.8906	4.73%	93.2835	4.91%	4.74%
Japan 30-year	¥	2.40%	101.7390	2.41%	100.0850	2.50%	2.40%
Hong Kong 10-year	HK\$	4.36%	108.1395	4.36%	106.9320	4.00%	4.36%
China (06/16)	US\$	2.95%	114.6059	2.92%	114.8900	2.90%	2.95%
Singapore 10-year	S\$	3.16%	100.9570	3.20%	99.2740	3.32%	3.16%
South Korea 20-year	US\$	5.02%	110.1736	5.01%	111.4550	4.88%	5.02%
Australia 15-year	A\$	2.34%	155.6280	2.21%	154.5890	2.35%	2.34%
New Zealand (12/17)	NZ\$	5.71%	102.6826	5.68%	101.3290	5.84%	5.71%
Philippines 20-year	PHP	7.57%	133.6004	8.01%	117.4100	9.41%	7.57%
India 30-year	INR	7.74%	94.2677	7.91%	91.9183	8.13%	7.74%
UK 30-year	£	4.07%	104.0460	4.03%	101.4440	4.16%	4.07%
Germany 30-year	€	3.86%	102.8460	3.85%	100.2630	3.98%	3.86%

This document is provided for information purposes only, and constitutes neither investment advice nor the recommendation to purchase or sell securities of the companies named in this document. IRG Limited, and its affiliated companies, make no representation as to the accuracy or completeness of the information contained in this document.