

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



Week of 29 June - 5 July 2003

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Equity Market Indicators					
Index	Closing Level (7/4/03)	% Change 1 Week Ago	% Change 1/1/2002	% Change 1/1/2003	% Change 2002 Low
S&P 500	985.70	1.1%	-14.6%	12.0%	27.9%
Dow Jones Industrial Avg.	9,070.21	0.7%	-10.0%	8.7%	25.5%
Dow Jones Tech. Index	283.20	3.0%	-16.0%	23.3%	56.2%
Dow Jones Telecom. Index	165.68	0.4%	-20.5%	12.0%	42.0%
NASDAQ Composite	1,663.46	3.8%	-16.0%	24.6%	50.7%
The Street.com Net	124.99	4.7%	-36.1%	45.9%	102.4%
Japan Nikkei 225	9,547.73	4.9%	-12.2%	11.3%	15.9%
Japan TOPIX	948.67	5.1%	-10.0%	12.5%	16.8%
Korea KOSPI Composite	693.25	2.4%	-4.4%	10.5%	17.6%
Korea Kosdaq	51.59	3.8%	-30.7%	16.3%	16.4%
Taiwan Stock Exchange	5,151.85	5.6%	-8.0%	15.7%	32.3%
Singapore Straits Times	1,486.24	0.6%	-8.6%	10.8%	11.4%
Hong Kong Hang Seng	9,636.81	0.3%	-15.1%	3.4%	8.9%
Hong Kong GEM	1,098.73	-1.0%	-42.3%	15.6%	23.7%
China Shanghai (A-Share)	1,573.22	0.4%	-6.1%	10.9%	14.2%
China Shenzhen (A-Share)	430.94	-0.2%	-12.0%	5.1%	10.3%
China Shanghai (B-Share)	112.50	-0.6%	-33.4%	-0.9%	1.0%
China Shenzhen (B-Share)	219.02	0.6%	-16.3%	17.1%	18.1%

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Technology, Media, Telecommunications and Life Sciences Market Activity

NASDAQ/NYSE TMT and Life Sciences IPO Filings

File Date	Issuer	Industry Sector	Size (\$MM)	Description	Book-Runner	Co-Manager
7/1/03	Acusphere Inc. [ACUS.US]	Pharmaceuticals	US\$69	Develops news drugs and improved formulation for existing drugs. The company uses porous microparticle technology.	SG Cowen Securities Corp.	Thomas Weisel and US Bancorp Piper Jaffray

NASDAQ/NYSE Equity Markets: TMT and Life Sciences IPO Pricing

Pricing Date	Issuer (Exchange)	Description	Size (US\$MM)	Offer Price	Price on 7/4/03	% Change From Offer
N/A						

Asian Equity Markets: TMT and Life Sciences IPO Pricing

Pricing Date	Issuer (Exchange)	Description	Size (US\$MM)	Offer Price	Price on 7/4/03	% Change From Offer
7/4/03	Giga Telecom Inc. [6472.KS] (Kosdaq)	Develops and manufactures cellular phones with CDMA and GSM telecommunication networks.	US\$2.5	KRW 1,300	KRW 2,910	123.8%
7/4/03	Kuang Sung Electronics H.K. [2310.HK] (HK Stock Exchange)	Manufactures and supplies a broad line of electronic components for electronic appliances and communication equipment.	US\$17.2	HK\$ 1.3	HK\$ 1.3	-3%
7/1/03	Cadland Inc. [6556.KS] (Kosdaq)	Develops, designs, and markets geographic information system (GIS) related software. Products include GIS engine software, spatial modeling software, situational analysis software, and other customized software.	US\$2.1	KRW 2,800	KRW 6,150	119.6%
7/1/03	Wangel Corp. [7213.KS] (Korea Stock Exchange)	Provides wireless Internet solution and services, such as wireless application protocol, content management systems, mobile multimedia server, and portal management system. Also provides intelligent network service for mobile communication carrier to control over the billing, call logic, and customer information of existing mobile systems.	US\$22.2	KRW 14,000	KRW 48,900	255.7%

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7/1/03	E-Litecom Co. Ltd. [4152.KS] (Kosdaq)	Manufactures back light units used in liquid crystal displays (LCDs). Products include electronic lamps and cathode fluorescent tube back light units.	US\$4.2	KRW 2,200	KRW 4,920	123.6%
6/30/03	Associant Technology Inc. [3714.JP] (Tokyo)	Provides total solution services for web business including designing, developing, maintaining, and monitoring website and server for its clients. Also develops systems for customer relationship management (CRM).	US\$4.1	¥ 195, 000	¥ 30,4000	55.9%

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Weekly Highlights

International

Information Technology

- **Korea, China and Japan formed a mutual assistance agreement in the IT sector at a meeting in Korea.** According to the Korean Ministry of Information and Communication, the two-day meeting dubbed "The Third Korea-China-Japan Experts Meeting on IT sector" focused on measures to standardize next-generation technologies in the three nations and collaboration in R&D. Delegates from the three nations, mostly composed of director-level government officials, reached a decision to set up standards for next generation technologies including a new mobile Internet address system called IPv6, Next Generation Converged Network, or NGcN, and fourth-generation mobile communication systems. The partnership of Korea and Japan, both widely acknowledged as frontrunners in the global IT industry, with China, which is quickly catching up with the two countries, is forecast to strengthen the three countries' voices in the IT standardization process that has mainly been led by the United States and Europe.

Internet

- **U.S. Internet companies AOL Time Warner Inc., eBay Inc. and Amazon.com Inc. started levying hefty new taxes on products downloaded by customers in Europe over the Internet,** including software, music and videos. Until now, these sales, including eBay's auction services, had escaped value-added tax, which ranges from 25% in Sweden to 13% on the Portuguese Island of Madeira. Physical products such as books and cameras purchased on the Internet and shipped to customers in Europe were already subject to VAT. The EU rules, which went into effect July 1, underline a sharp trans-Atlantic divergence over taxing e-commerce. In the U.S., no taxes are applied to all online transactions. U.S. authorities argue that the infant Internet industry needs the advantage to get off the ground. In contrast, EU governments long have taxed Internet sales, saying online businesses should not receive any special favors. Moreover, negotiations on a global accord on the taxation of e-commerce through Organization for Economic Cooperation and Development have bogged down during the past few years.

Media, Entertainment and Gaming

- **AOL Time Warner Inc. sold a 64% stake in its Mandarin-language television station, CETV, to tom.com Ltd.** in an all-share offer valued at 53.2 million Hong Kong dollars (US\$6.8 million). The Hong Kong Internet and outdoor-advertising company also will assume funding needs for the channel up to US\$30 million during the next 30 months. The deal allows AOL to cut its exposure to what had become a costly attempt to enter China's television market. CETV posted a loss of US\$17 million on revenue of US\$450,000 last year, tom.com said.

Mobile / Wireless

- **Negotiators at an international conference have agreed to allocate more of the world's airwaves to wireless Internet users,** according to U.S. and European Union officials. The 180-nation World Radiocommunication Conference, which sets standards for countries' use of airwaves, decided to expand by 455 megahertz the space available to wireless local-area networks. A conference committee

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and one plenary session have cleared the deal, which is likely to be approved. The decision will be a particular boost for Wi-Fi, a type of radio technology used for WLANs. Wi-Fi lets a broadband Internet connection be shared by several computers, generally in a short range. Wi-Fi "hot spots," or cable-free access points, have sprung up in offices, cafes, airports and hotels worldwide. Many governments do not require Wi-Fi and other WLAN operators to have a license, but authorities worldwide agree that frequency guidelines are needed and should be brokered by the U.N. telecommunications agency, the International Telecommunication Union.

Software

- **Matsushita Electric Industrial Co., Sony Corp. and six other big consumer-electronics companies on set up a forum to encourage the use of Linux to run gadgets** such as audiovisual equipment and mobile phones. The forum will discuss what kinds of standards are required for Linux-based software on consumer-electronics products and will evaluate software that comes out, the companies said. The six other companies in the group are Hitachi Ltd., NEC Corp., Philips Electronics NV, Samsung Electronics Co., Sharp Corp. and Toshiba Corp. IBM Corp. also plans to become a member, the companies said.

Telecommunications

- **U.S. Bankruptcy Judge Robert E. Gerber rebuffed the request of XO Communications Inc., which is controlled by Mr. Icahn, to back an effort to reopen bidding for the Global Crossing.** The judge upheld an arrangement that allows Global Crossing to negotiate exclusively with Singapore Technologies Telemedia (STT). However the fight for Global Crossing, which controls a 100,000-mile fiber-optic network, isn't over. STT remains in discussions with the U.S. government to win national-security approvals for its planned purchase of the company, and Mr. Icahn could still make a superior bid that Global Crossing's board would have to consider. XO Communications said it "remains highly skeptical" of the STT deal receiving government approval, and that it would continue to monitor the bankruptcy proceedings.

Japan

e-Commerce

- **Excite Japan Co. will set up a mail-order sales site on the EZweb Net access service for KDDI Corp.'s "au" cellular phone users.** Using KDDI's fee collection system, Excite will charge buyers of the mail-order sales site access fees along with their purchases allowing buyers to pay both fees together. Excite is hoping to expand sales on the site by touting this convenience. Called Shopping Excite, the mail-order site will be recognized as one of the official "au" net service sites.

Hardware

- **Matsushita Electric Industrial Co. is on track to achieve its goal of increasing revenue of ¥1 trillion (US\$8.5 billion) in China by 2005,** more than three times its revenue there in 2002, an executive said. The Japanese consumer electronics giant now expects revenue of ¥450 billion (US\$3.8 billion) in China in 2003 and ¥700 billion (US\$5.9 billion) in 2004 after generating ¥300 billion (US\$2.5 billion) there in 2002.
- **Semiconductor Energy Laboratory unveiled an organic electroluminescent (EL) display panel that could be seen from the front and back.** This development paves the way for devices that would

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allow photographers and subject to see the same picture. Organic EL panels are expected to replace liquid crystal display (LCD) panels in the future because they need no backlighting and are thinner. Semiconductor Energy Laboratory's current "dual-emission" organic EL screen is 5 centimetres wide and .15 centimetres thick.

Internet

- **eBay, the world's largest Internet auctioneer, was still searching for ways to re-establish itself in Japan, a key market in its international strategy**, chief executive Meg Whitman said. eBay shut down its money-losing Japanese site in March last year, conceding that it was not making inroads into Yahoo! Japan's lead in the auction market. eBay spent two years working to increase the struggling site's business and said it would eventually re-enter the country. Whitman said eBay could re-open a site in Japan if the Japanese became more interested in cross-border selling and buying. It could also consider re-entering through an investment in another company.

Life Sciences

- **The National Institute of Advanced Industrial Science and Technology and Mitsui & Co. have nearly completed the development of technology to mass-produce porous silicon material**, a new nanotechnology material that has a wide range of industrial applications. The bar-shaped material, which has numerous holes 1.5 to 6 nanometers in diameter, could boost the efficiency of refining drugs and other chemical substances by having chemical reactions occur in the holes, for instance. It can also be used to make absorbent chemicals.
- **Horiba Biotechnology Co., a biotechnology subsidiary of Horiba Ltd., has developed reagents and testing equipment that makes use of antibodies to measure agricultural residues in vegetables.** The approach provides a relatively inexpensive and fast way to make such tests. The procedure entails causing a reaction between the antibody reagent, which is coated on a plate, and preprocessed vegetable material. The test, including preprocessing, can be carried out in two to three hours and can determine the presence and concentration of agrochemicals. From the coming fiscal year, the company will offer a set with 20 reagents. It plans to market the set, including measuring and related equipment, for roughly ¥2 million (US\$16,900).

Media, Entertainment and Gaming

- **Digital Garage Inc., a provider of services for Internet businesses, and Digital Network Appliance Inc. (DNA), a Tokyo-based online video system firm, will sell a system enabling distribution of high-quality moving images at lower costs.** Under the system developed by DNA, video taken from the Internet via a broadband network is stored on a dedicated terminal, which distributes the video via television. Digital Garage will establish a system to manage the content distribution. The video distribution system requires less investment, compared with the streaming method that can transmit images on a real-time basis, according to the two companies. In addition, as the moving images will be played on TV, without using personal computers, there will be less problems with illicit copying.
- **Softbank is opening an online gaming portal in an effort to boost the number of users for its growing broadband service.** BB Games will begin services on July 25th offering about 30 online games that can be played on a PC. The number of games will grow to about 200 by April next year, Softbank said. The company, which co-owns Yahoo! is banking on a broadband service called Yahoo! BB that has attracted nearly 2.7 million people.

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Mobile / Wireless

- **A group of Japanese publishers launched a campaign to stop people from using camera-equipped cell phones to photograph magazines instead of buying them.** As camera-phone technology improves to produce sharper images, more people are using them in bookstores for digital shoplifting. So for the next two months, the association is posting notices at bookstores across the nation advising customers that such usage is illegal. The abuse of camera phones is a growing problem. There have been reports of people using them to photograph up women's skirts or furtively snap shots in off-limits areas, such as courtrooms or museums. Cell phone manufacturers, concerned by the unintended uses of their gadgets, have mounted cell phone etiquette campaigns asking customers to respect privacy and refrain from unauthorized photography.
- **NEC said it wanted to increase the use of i-mode Internet-capable services pioneered by NTT DoCoMo,** especially in the growing European and Asian markets. It would target firms in Europe and Asia in particular where demand for advanced mobile phones was growing, said NEC spokeswoman Akiko Shikimori. From June 26, Spain's largest mobile phone operator Telefonica Moviles Espana (TME) started using NEC's mobile Internet platform, which provides easy access to i-mode services such as e-mail and video pictures. NEC also already supplies the system to Taiwan-based mobile operator KG Telecom and Bouygues Telecom of France.
- **Toshiba Corp. and NEC Corp. have separately developed quantum encryption technologies that can securely transmit data more than 100km without fear of interference or interception.** A group of researchers at NEC, as well as Toshiba Research Europe Ltd., a research laboratory based in Cambridge, England, have created a highly sensitive detection device that senses movement of the photons that carry information in quantum encryption communications. When the detector is incorporated into a receiver, it enables secure data communications at a distance of over 100km, which had previously been impossible.

Semiconductors

- **NEC Electronics Corp., a semiconductor company being split off from electronics conglomerate NEC Corp., set a tentative price range of ¥3,600 (US\$30.06) to ¥4,200 (US\$35.07) a share for its initial public offering of 34 million shares.** The share offering, one of the biggest this year, is expected to highlight the strong investor demand for well-marketed IPOs. The deal follows the successful debut of Seiko Epson Corp., when shares of the Japanese maker of printers and electronic devices traded 42% above its offering price.
- **Tokyo Ohka Kogyo Co. has started mass producing photoresists compatible with argon fluoride (ArF) lasers, which can etch extremely thin lines on silicon wafers.** ArF lasers, which can also be used to make next-generation microchips, are expected to become the mainstream laser for creating circuit lines on wafers. By beginning mass production of ArF laser-compatible photoresists ahead of its rivals, the company aims to capture more than half of the domestic photoresist market by the year-end. Currently, the krypton fluoride (KrF) laser is the mainstream laser. But with a wavelength of 248 nanometers a KrF laser cannot create lines thinner than 110-130 nanometers. An ArF laser with a 193-nanometer wavelength can etch lines as thin as 90-110 nanometers.
- **Nikon Corp. and Dainippon Screen Mfg. Co. announced that they will collaborate on a photolithography process for next-generation semiconductors made with circuits narrower than 90 nanometers.** The two companies will work to combine Nikon's steppers with Dainippon Screen's

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photoresist coater-developers so the machines can be smoothly integrated on the same production line, sharing data in ways that will boost overall production yields when circuit patterns are defined on wafers. The two companies will cooperate to research methods for exchanging data between their respective machines and to develop a control system that can dynamically adjust the machines to compensate for changes in process conditions.

Telecommunications

- **Nippon Telegraph & Telephone Corp. affiliates NTT East & NTT West and NTT Communications reported that fixed-line traffic and revenues from voice communications services dropped sharply** in fiscal 2002. Amid the proliferation of mobile phones, NTT East and NTT West reported a combined 28.5% drop in communications traffic over fixed lines from a year earlier, in terms of hours of usage. NTT East saw a 16.9% drop in connections to 18.7 billion calls, and usage fell 30.8% to 1.07 billion hours. Revenues from voice communications services declined 9% to ¥1.7 trillion (US\$14.4 billion), while revenues from data services jumped 86% to ¥59.7 billion (US\$504.9 million).
- **Telecommunications operators risk going out of business if they fail to diversify into value-added services**, NTT Com Asia managing director Kenji Sakata has warned. However, Mr Sakata said carriers could halt falling profit margins by providing value-added services, such as system integration services, Internet Protocol solutions and consultant services. The global telecom market had been suffering from overcapacity, slow growth and high competition, clouding earnings prospects of carriers, he said. Mr Sakata said NTT had been beefing up its efforts to diversify into value-added services, especially in China.

Korea

Hardware

- **Korean financial authorities are considering whether LG-Philips LCD Co., the world's largest TFT-LCD supplier, should be listed simultaneously on both domestic and U.S.** According to financial industry sources, the authorities regard such listings at home and abroad as a good means of enlarging and diversifying the amount of financial resources available to the firm.
- **LG is reinventing itself to come up with consumer electronics that caters to high-end customers.** LG aims to beef up its brand by focusing on sales of high-technology home appliances that are more profitable. LG's strategy has paid off. It recorded earnings last year and its shares are at one-year highs after they were re-listed last April as a unit of holding company LG Group. The upturn in LG's mainstay appliance business - which made up 32 per cent of revenues but 59 per cent of profits last year - comes at an auspicious time. LG's other businesses - digital television, computer monitors and mobile-phones - are facing increased competition and falling prices.

Media, Entertainment and Gaming

- **Korea's game market is expected to be worth 5 trillion won (US\$4.2 billion) in 2005**, if the current bullish trend continues, government data showed. In a white paper released by the Ministry of Culture and Tourism and the Korea Game Development Institute, the domestic game market grew 13 percent to 3.4 trillion won (US\$2.8 billion) in value last year and is expected to break the 4 trillion won (US\$3.3 billion) mark this year. The market is forecast to grow 5.2 trillion won (US\$4.4 billion) in 2005. The spectacular growth expected in the mobile game market is estimated to be 380 billion won (US\$321

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million) in 2005. The online game market, led by NCsoft, is also expected to continue solid growth in the coming years. Online game service providers posted combined revenue of 450 billion won (US\$380.1 million) in 2002, up 69 percent from a year earlier.

- **Microsoft Korea said that it would lower the prices of its Xbox and related game titles** in an effort to turn around its sluggish sales in the fiercely competitive video game industry. The Korean unit of the software giant announced in a memorandum sent to its local distributors that the price reduction will be carried out on the first day of July. Accordingly, the retail price of an Xbox will be lowered 10.6 percent to 249,800 won (US\$208) from the previous price of 279,400 won (US\$236). Microsoft Korea's decision to lower the prices of Xbox and its game titles is expected to make the items more price competitive against its dominant-position competitor Sony PlayStation.

Mobile / Wireless

- **Samsung Electronics said it would ban employees and visitors from bringing their camera phones into semiconductor, flat-panel and electronics factories.** The ban will be to protect the firms' cutting-edge technologies against industrial espionage. Ironically, Samsung is the leading maker of high-end camera phones, dominating the domestic market and spearheading innovation in the global mobile handset industry.
- **LG Electronics said that it has rolled out a new mobile handset that utilizes Korea's wireless Internet standard known as WIPI** (wireless Internet platform for interoperability). The latest handset model, the LG-SD200, is designed to allow subscribers of any of the three mobile carriers in Korea to freely use wireless Internet content, regardless of which carrier they have signed up with. Up until now, wireless Internet content needed to be modified for each carrier, making it impossible for subscribers to download content belonging to other carriers due to the different formats and specifications.

Software

- **SK Corp. has blocked its employees from using instant-messaging services to address the growing concerns over leakage of corporate information through new IT solutions.** SK said it has put a firewall on its network so that it can prevent workers from using mainstream messenger programs such as those provided by Microsoft MSN, Daum Communications Corp. and Yahoo! Korea. The company's move against instant-message services is the result of pressure by foreign investors including its largest shareholder Crest Securities Co.

Telecommunications

- **KT Corp. announced that it would join the satellite digital multimedia broadcasting business,** following on the heels of SK Telecom, the country's largest mobile carrier, which recently decided to tackle the project. Satellite digital multimedia broadcasting is a service that makes it possible for people to view TV programs through mobile phones in a moving vehicle, among other benefits. According to an official at the Ministry of Information and Communication, Korea and Japan secured the right to share the 2.605 to 2.530 GHz frequency band at the World Radio Communication conference currently ongoing in Geneva, Switzerland, thus allowing KT to launch the service.
- **Thrunet Co. said it would stage a public auction to find a new major shareholder** Aug. 25th, after receiving applications through July 15th, with a handful of telecommunications firms showing interest in Korea's third-largest broadband carrier. Thrunet had 1.28 million subscribers as of the end of May but is in severe financial difficulties. Industry sources said serious bidders should consider offering at least 500 billion won (US\$421 million) to secure the management rights of Thrunet. The embattled Thrunet

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specified that the successful bidder should use more than half of the takeover funds to purchase new shares that will be issued by Thrunet and should hold 50 percent of the newly acquired stake for at least one year.

- **The LG Group is now expected to gain momentum in its bid to take over Hanaro Telecom Inc., as Hanaro's board rejected a take-over proposal by a U.S. consortium led by AIG.** The AIG-led investment deal included a proposal to purchase US\$450 million worth of new Hanaro shares and a US\$600 million syndicated loan in return for a 40 percent stake, but the board of Hanaro turned down the offer, citing low prices. The decision has given the LG Group, the biggest shareholder of Hanaro with a 13 percent stake, a positive signal for a take-over. Analysts expected Hanaro would go in for simply delaying its decision in order to have the upper hand in its negotiations with LG but the outright rejection means Hanaro is openly wooing the LG Group for a merger deal. However, Hanaro is yet to formally approve LG's proposal for a US\$419 million rights offering. It is set to hold a board meeting July 8 and people familiar with the matter said Hanaro will likely approve a deal with LG.

China

Mobile / Wireless

- **The urban wireless services, called Xiaolingtong, offered by China's two fixed-line giants - China Telecommunications and China Netcom - have had a 70 per cent increase in subscribers** over the first five months this year. Users of the service reached nearly 20 million by the end of May, compared with 12 million at the end of last year. Xiaolingtong accounted for about 43 per cent of the 18.46 million new fixed-line users signed up by China Telecom and China Netcom, and 8 per cent of the mainland's 232.88 million fixed-line subscribers. The service is simply a wireless local loop access network that provides limited mobility in an urban area, so Xiaolingtong was classified as an extension of fixed-line services by the Ministry of Information Industry despite China Mobile and China United's objections. By charging only a fraction of mobile rates, Xiaolingtong is increasingly popular among low-end mobile users. The service is disruptive to the mainland's mobile networks because it competes with their mobile service offer and limits their pricing power.
- **Germany's Siemens will launch its Xelibri brand handset in China this week to gauge demand for the quirky mobile phone in the world's biggest market.** The Xelibri, which targets the fashion-conscious, will be distributed in 100 mainland cities after its launch in Hong Kong and Singapore last month. The handset, which has a different shape from traditional mobiles, is sold through department stores and trendy outlets. Xelibri brand president George Appling said China Cable Telecom and Cell Star had been appointed as mainland distributors and talks had been held with United States coffee chain Starbucks to sell the phones in China.

Software

- **Indian Information Technology and Communication Minister Arun Shourie said that India was to make a concerted bid to sell software solutions to global manufacturing firms in China.** He added that he asked his department to form a think-tank to explore ways of tapping the potential of the Chinese IT market. He said that Indian firms would not only forge strategic alliances with Chinese software firms but also attract Chinese software engineers into their offices in Shanghai and Beijing. The Indian IT industry's annual exports to China stand at 200 million rupees (US\$4.3 million), a mere 0.05 per cent of its total software exports.

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Telecommunications

- **A recent leadership reshuffle in China's telecommunications sector might signal the end of cheap asset injections and price stability among carriers**, analysts said. The sector is going through a shake-up, including leadership changes at the Ministry of Information Industry and the carriers. Last week, China United Telecommunications Corp said its chairman Yang Xian Zu, who has retired, would be succeeded by his deputy Wang Jianzhu, marking the fourth leadership change in the industry within the past four months. In March, Wang Xudong was appointed to head the Ministry of Information, replacing Wu Jichuan who retired. Next was the departure of China Netcom Group's head Xi Guohua after just a year in the post who was replaced by Zhang Chunjiang. Moreover, the ministry of Information Industry has made complete network interoperability its priority for this year in order to boost competition. To demonstrate its determination, the regulator recently penalized China Telecom, Unicom and China Mobile for violating interconnection regulations.

Taiwan

Mobile / Wireless

- **Fubon Financial Holding Co. bought 75 million shares in Taiwan Cellular Corp., or a 1.7 percent stake, from Verizon Communications Inc. for NT\$1.9 billion (US\$55 million).** The purchase gives Taiwan's second-largest financial services company more control over the island's biggest provider of mobile-phone services. Fubon also found potential overseas investors to buy a stake in Taiwan Cellular owned by affiliate Taiwan Fixed Network, which would help improve the operations of both telecommunications companies. Fubon adds to its 17 percent stake of Taiwan Cellular with this purchase. Daniel Tsai, Fubon's vice chairman and the acting chairman of Taiwan Cellular, at a shareholders' meeting said that he plans to become the chairman of the mobile services company and start cost-cutting measures in a few months.

Semiconductors

- **Macronix International Co., Taiwan's biggest maker of memory chips for electronic games, said it expects to become profitable next year after cutting investment.** The company, which forecast a loss of NT\$7.8 billion (US\$225 million) this year, reduced its spending more than three-quarters to NT\$2 billion (US\$58.1 million), spokesman Patrick Tang said.

Singapore / Malaysia / Philippines / Indonesia

Mobile / Wireless

- **Maxis launched the first picture messaging service in Malaysia and said it aimed to attract 60,000 new customers by year-end** with the new multimedia services. Maxis was offering customers up to 50 free pictures a month until September and would waive charges for the general packet radio services (GPRS) during the period to spur take-up. Depending on the phone's capacity, the new service allows users to take pictures or select provided picture content, add text and sound, and send it to other Maxis-customer phones within the country. Images can also be sent from the phone via e-mail to contacts overseas as well.

Telecommunications

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- **Singapore Telecommunications Ltd. Chairman Ang Kong Hua will step down in August and will be succeeded by Chumpol NaLamlieng**, the president of Siam Cement PCL, the Singapore-based regional telecommunications company. Mr. Chumpol, who is 55 years old, will be the first non-Singaporean to head the two-thirds government-owned company. Mr. Ang's departure from SingTel, two years after he was appointed chairman, comes after a public relations fiasco last month, when reports surfaced that he had bought and sold shares in a rival mobile operator, MobileOne Ltd. Some analysts said it was inappropriate for him to trade a rival's shares.
- **Singapore Telecommunications Ltd.'s overseas bets are ringing up some surprisingly solid payoffs.** SingTel has boosted its fortunes recently with savvy regional investments and acquisitions, most notably the once-criticized purchase of a plucky Australian carrier, the former Cable & Wireless Optus Ltd. Optus was the main revenue driver in **SingTel's** latest fiscal year, and helped the company pull in record revenue of 10.26 billion Singapore dollars (US\$5.84 billion). While SingTel's net profit slipped 14% for the full year, earnings in the fourth quarter soared 72%, largely because of the company's foreign investments.

Hong Kong

Telecommunications

- **Hutchison Whampoa is selling one billion euros (US\$1.2 billion) worth of 10-year fixed coupon bonds.** It is the first euro bond to be issued by the company since 1999. A Hutchison spokeswoman confirmed that HSBC had been designated as the sole bookrunner for the bond sale. A banking source said the initial price guidance of the 10-year euro bond had been set at 195 to 200 basis points above the standard reference rate for euro-denominated borrowing, implying an effective interest rate of nearly 6 per cent. The company has about US\$8.7 billion of debt due this year and next, according to a Reuters. News of the bond issue came just before the firm announced that it expected Hong Kong third-generation (3G) mobile services to be launched next month.

United States / Canada

Hardware

- **Notebook computer sales surpassed sales of desktop computers** for the first time in May thanks to an increasing desire for mobility, according to a survey by market research firm NPD Group. Notebooks accounted for more than 54% of the nearly US\$500 million in retail computer sales in May. That compares with January 2000, when laptops represented less than 25% of sales volume. Stephen Baker, director of industry analysis at NPD Group, attributed the surge in sales of notebook computers to a greater interest in being able to take your computer on the go.

Information Technology

- **Electronic Data Systems Corp. said it expects its second-quarter free cash flow to be below its target, because of a later-than-expected payment from bankrupt telecommunications company WorldCom Inc.** The troubled computer services company had previously expected a US\$98 million payment from WorldCom for a pre-bankruptcy receivable by the end of the current quarter. The company now expects the payment later this year. Consequently, EDS said it expects to miss its US\$75

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million to US\$125 million target in the second quarter for free cash flow, which the company defines as net cash from operating activities minus capital expenditures.

Internet

- **Corbis Corp., a photography provider owned by Microsoft Corp., said it sued Web retailer Amazon.com Inc. for being party to illegal sales of its images.** Spokesman Bill Curry said Amazon removed 15 merchants, who were also named in the lawsuit, from its Web store after learning of Corbis' lawsuit. Corbis could get as much US\$150,000 for each infringed copyrighted image, plus other damages, according to the lawsuit, which was filed in the U.S. District Court in Seattle.
- **eSpeed Inc. has sued BrokerTec, its largest electronic bond trading rival, alleging that BrokerTec's trading system infringes on an eSpeed patent.** The lawsuit deepens the long-running strains between the two firms. BrokerTec and eSpeed handle the trading of many kinds of bonds and are among the largest wholesale traders of U.S. Treasuries, a US\$3.3 trillion market, according to the Bond Market Association, a trade group. eSpeed is seeking an order directing BrokerTec to stop operating its electronic trading system, saying it infringes on an eSpeed patent that protects some eSpeed proprietary systems and electronic trading methods.

Life Sciences

- **Invitrogen Corp, a biotech company, said it will buy privately held Molecular Probes for about US\$325 million, adding tools for research and drug discovery.** Molecular Probes uses fluorescence-based technologies in labeling molecules for biological research and drug discovery. Invitrogen said the transaction has been approved by both companies and is expected to close in the third quarter.

Media, Entertainment and Gaming

- **The 9th U.S. Circuit Court of Appeals said that certain online publishers can post material generated by others without liability for its content** -- unlike traditional news media, which are held responsible for such information. Online publishers and free-speech advocates lauded the court's decision. Other cases have said commercial service providers on the Internet are not responsible for information posted by a third party. And this decision says noncommercial Web site hosts are only liable when they post information that a reasonable person would have known was not meant to be published.
- **Video game publisher Activision Inc. said it filed a breach of contract lawsuit against Viacom Inc., alleging that the media company failed to support its Star Trek video games.** Activision said in a statement it has terminated its pact with Viacom and filed a complaint seeking to recover the damages it has suffered and will suffer from the breach.
- **AOL Time Warner and Bertelsmann AG are making headway in talks over a music merger and could hammer out a deal over the next couple of months, people close to the companies said.** The media groups are hammering out details of a joint venture of their Warner Music and BMG recorded music businesses in a deal that would bring together artists ranging from pop queen Madonna to Latin rocker Santana. Ranking as the world's fourth- and fifth-biggest music companies, Warner Music and BMG are under pressure to do a deal in an industry ravaged by piracy and grappling with an outdated business model. A deal would leave rival EMI Group, which has held talks with both companies in recent months, out in the cold. However, some sources said EMI is not necessarily out of the picture yet and still could attempt to revive talks.

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- **For the first time, the songs and albums that consumers pay to download from online services will begin showing up in the influential Billboard music rankings.** The decision to track the sales by Nielsen SoundScan -- the company that collects the data published by Billboard magazine in its sales charts -- means that a key gauge of popular music taste will begin to reflect the influence of a new breed of consumers who buy songs on their PCs, instead of going to the mall and purchasing a CD. It will also raise the public profile of the authorized online music-selling services, which are in a hard-fought battle to woo music lovers away from illicit networks like Kazaa and Morpheus. The first of the new data will be unveiled and sales of downloaded singles and albums will be incorporated into Billboard's traditional charts reflecting overall sales. In addition, Nielsen SoundScan will offer a new Internet-only category, which includes songs sold one by one or as part of bundles online.

Mobile / Wireless

- **WorldCom Inc., now known as MCI, selected a US\$144 million cash bid from a unit of Nextel Communications Inc. to buy some of WorldCom's network equipment, licenses and tower leases** for providing wireless broadband telecommunications services. According to a filing in bankruptcy court, WorldCom said the offer by Nextel Spectrum Acquisition Corp. would also include some non-cash consideration. Additional details about the deal were not available, but WorldCom said it will file a copy of the asset purchase agreement with Nextel Spectrum Acquisition.
- **RealNetworks said it will supply Vodafone with software that streams live video to cell phone users.** RealNetworks said Vodafone will use its software to transmit real-time audio and video -- from classical music concerts to video feeds of traffic trouble spots -- to the UK-based carrier's 119 million customers. The Vodafone deal caps a drive by niche player Real to clinch exclusive deals with cell phone industry leaders. Nokia and Ericsson already have agreements with RealNetworks. Vodafone, which operates in 28 countries around the world, said it will start installing Real's software sometime next year. Vodafone operations already use barebones RealNetworks software to bring live TV and music clips to handsets. The deal also will affect mobile phone purchases, since Vodafone will tell vendors it prefers handsets with RealOne.
- **The commercial rollout of wireless high-speed Web access known as Wi-Fi is picking up steam, as two more major companies soon will offer hot spots,** public locations where customers can pick up broadband signals. SBC Communications Inc. is expected to install 2,000 hot spots in hotels, airports and other high-traffic areas, primarily in its 13-state region that includes Texas and California, by the end of next year. The company is expected to announce the initiative this month and will begin deploying the hot spots by October. The rollout would be among the biggest so far. Meanwhile, Barnes & Noble Inc. said it plans to test Wi-Fi access in two dozen stores in the Atlanta and Seattle areas this summer. Pricing hasn't been determined and likely will be left to whichever telecommunications providers wind up with the New York book retailer as a partner.

Semiconductors

- **LSI Logic Corp. said it sees a wider-than-expected quarterly net loss, and said it has decided to sell a manufacturing facility in Japan.** The company said its second-quarter sales will increase about 9 percent from the previous quarter, near the high end of its previously forecast range. However, its net loss is expected to be in the range of 43 to 50 cents a share, compared with the earlier estimate for a loss of 23 to 31 cents a share. LSI Logic said it expects to report US\$140 million to US\$160 million in one-time items, compared with the previous guidance of US\$50 million to US\$70 million.

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Software

- **Microsoft Corp. said it has fixed another security flaw in its popular Internet Passport service that could have allowed hackers to hijack some older accounts.** Microsoft senior manager Jeff Jones said he believes no Passport accounts were stolen. Mr. Jones declined to say how many people were at risk but said the flaw affected only a small number of users who had created their accounts more than four years ago. As part of its repair efforts late Monday, Microsoft briefly prevented some Passport users from manually changing their passwords. Passport, which offers consumers a convenient method for identifying themselves across different Web sites, also controls access for Windows users to the Hotmail e-mail service and instant-messaging accounts.
- **Antitrust regulators are requesting more information about Oracle's US\$6.3 billion hostile takeover offer for PeopleSoft Inc.** The request for more information from regulators at the Justice Department could cause a delay in Oracle's move to acquire PeopleSoft, and a delay may give PeopleSoft more time to complete its pending US\$1.75 billion acquisition of software firm J.D. Edwards. In addition, a delay would likely mean that Oracle would have to extend its tender offer for PeopleSoft, which is currently set to expire a week from Monday. The request for more information from the DOJ indicates that regulators have concerns about the impact on competition aspects from a combined Oracle-PeopleSoft company that requires further attention.
- **The Securities and Exchange Commission filed civil charges against Peregrine Systems Inc., the bankrupt software company, alleging financial fraud that spanned 11 fiscal quarters.** The SEC said Peregrine agreed to a partial settlement without admitting or denying allegations in an SEC lawsuit, which was filed in a federal court in the Southern District of California.
- **PeopleSoft Inc. raised its second-quarter revenue and profit guidance, defying fears that Oracle Corp.'s hostile bid had disrupted the business software maker's sales.** PeopleSoft said that based on preliminary information, it expects revenue of US\$105 million to US\$115 million from new software licenses and US\$490 million to US\$500 million overall. In April, the company forecast second-quarter revenue of US\$450 million to US\$460 million.
- **Siebel Systems Inc., the producer of software to manage customer service and sales activities, said it expects 2Q earnings to fall short of current Wall Street estimates.** The company cited unexpected delays in purchasing decisions by customers due to an uncertain economic climate. Siebel sees earnings per share of 2 cents for the quarter ended June 30th on revenue between US\$330 million and US\$334 million, below estimates of US\$348.2 million. License revenues for the quarter are seen at US\$110 million.
- **Microsoft Corp. is starting to shift U.S.-based jobs to India as it seeks to lower technical support and development costs.** Microsoft long seen as a growing company immune to job losses, is now considering cutbacks in the United States while increasing staff in India, which turns out tens of thousands of English-speaking software engineers each year. Boosting its employee ranks in India also became a priority for the company after Chairman Bill Gates announced US\$400 million in Indian investments over three years during a visit to the India in November. So far, Microsoft has about 200 engineers developing software in the south India city of Hyderabad, where it opened its first non-U.S. product development center five years ago.

Telecommunications

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- **Despite continuing efforts to reduce debt and build up cash balances, AT&T Corp. had its corporate credit rating cut by Standard & Poor's to triple-B**, a one-notch downgrade. S&P said the downgrade reflects its negative long-term assessment of the firm's business risk profile. S&P said that as of March 31st, total debt outstanding at AT&T was about US\$18.1 billion, unadjusted for operating leases and other postretirement employee benefits.
- **Verizon Communications Inc. outlined a number of planned charges, including a US\$1.6 billion charge due to an accounting change.** The company reiterated its full-year operating forecast. The company said that the accounting charge relates to a plan to recognize revenue from its directory business over the life of phone books -- typically 12 months -- rather than when the company first distributes them. The move will reduce first-quarter earnings to 87 cents a share from US\$1.41 a share.
- **Qwest Communications International Inc. received financial reporting waivers from its lenders for Qwest Services Corp.'s US\$1.6 billion credit facility and QwestDex's US\$750 million term loan.** The company said it sought the waivers because it is in the process of restating prior financial statements necessary to complete reporting for 2002 and the first quarter of 2003. The firm remains a subject of a federal probe into its past accounting practices and disclosures. It is also in the process of selling its QwestDex directory business, with the transaction expected to close this year.
- **With millions of people signing up to stop receiving pesky sales calls, the nation's biggest marketers are preparing a new round of potentially annoying advertising pitches via e-mail and direct mail.** Telemarketing efforts could be severely hampered by the federal government's launch of a national "do not call" registry designed to curb residential sales calls. The program takes effect Oct. 1, when telemarketers who ring those on the list could be fined as much as \$11,000 per call. Faced with the prospect of losing a direct line to the living room, marketers plan to flood mailboxes and computers with an avalanche of solicitations. In addition, consumers who call these companies on other business may well find they have to navigate an earful of annoying sales pitches.

Europe

Internet

- **Scandinavian Airline Systems (SAS) said it would offer wireless broadband Internet connections to passengers on long-haul flights from 2004.** SAS had yet to set a definitive price for the service, but said it would likely be in the range of US\$30 to US\$35 dollars. The airline is scheduled to begin making the necessary equipment installations in February 2004, and its entire long-haul fleet of 11 Airbus-340s is expected to be outfitted by next year. The technical solutions will be provided by a subsidiary of US aerospace giant Boeing, Connexion by Boeing.

Mobile / Wireless

- **SAP AG and Sharp Corp. said they will collaborate to develop and market corporate-use mobile-communications services.** The firms said demand for mobile devices that can access data on corporate computer systems is growing rapidly. The two firms estimate demand for such products runs to around 17 million corporate users worldwide and 1.2 million in Japan. Sharp will develop software and hand-held devices that will be compatible with SAP's software. SAP makes software used to integrate back-office functions such as distribution and manufacturing. SAP's mobile applications will first be installed in Sharp's "Zaurus" personal digital assistants, or PDAs, which are equipped with high-

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resolution liquid crystal displays and run on the Linux operating system. The pair also plans to jointly develop terminals such as mobile personal computers and mobile phones.

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Other Economic Data

Currency Exchange Rates						
Currency	Units	Current Rate (on 7/4/03)	% Change 1 Week Ago	% Change 1/1/2002	% Change 1/1/ 2003	% Change Last 12 Mth.
Japanese yen	¥/US\$	118.1400	1.2%	-10.3%	0.6%	0.2%
Hong Kong dollar	HK\$/ US\$	7.7985	0.0%	0.0%	0.0%	0.0%
Chinese renmenbi	RMB/ US\$	8.2776	0.0%	0.0%	0.0%	0.0%
Singapore dollar	S\$/ US\$	1.7494	0.4%	-5.3%	-0.8%	0.6%
South Korean won	KRW/ US\$	1180.5000	1.2%	-10.1%	0.4%	0.9%
New Taiwan dollar	NT\$/ US\$	34.3700	0.7%	-1.8%	0.8%	-2.5%
Australian dollar	US\$/A\$	0.6787	1.6%	33.2%	20.9%	20.2%
New Zealand dollar	US\$/NZ\$	0.5947	2.1%	42.9%	13.4%	21.1%
Philippine peso	PHP/ US\$	53.4100	0.4%	3.4%	0.4%	-5.5%
Euro	US\$/€	1.1490	0.5%	29.2%	9.5%	16.0%
British pound	US\$/£	1.6663	1.0%	14.6%	3.5%	7.9%

Fixed Income Prices and Yields

Note	Currency	Current (on 7/4/03)		1 Week Ago		4 Weeks Ago	
		Price	Yield	Price	Yield	Price	Yield
US 30-year	US\$	110.6406	4.68%	112.6406	4.57%	115.5625	4.40%
Japan 30-year	¥	112.8670	1.54%	121.5525	1.17%	127.3465	0.96%
Hong Kong 10-year	HK\$	124.7870	3.20%	125.9449	3.04%	126.5239	2.98%
China (10/2027)	US\$	145.5364	4.42%	150.5784	4.17%	153.8367	4.02%
Singapore 10-year	S\$	117.3480	1.95%	118.2079	1.84%	119.2721	1.72%
South Korea 10-year	US\$	124.2953	3.32%	124.6334	3.27%	126.4963	2.99%
Australia 15-year	A\$	110.6135	5.11%	111.2940	5.03%	113.3420	4.79%
New Zealand (07/2009)	NZ\$	109.0365	5.23%	109.5540	5.14%	109.8204	5.10%
Philippines 20-year	PHP	148.3913	11.98%	148.8647	11.94%	148.0184	12.02%
India 20-year	INR	149.5018	5.98%	149.6723	5.98%	149.5249	5.99%
UK 30-year	£	94.3160	4.60%	94.6918	4.58%	97.4643	4.41%
Germany 30-year	€	110.7320	4.78%	111.3746	4.75%	114.1193	4.59%

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