

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



Week of August 9-14 2004

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International

Information Technology

- **The global DSL business is down by two million ports in the second quarter but is expected to recover, according to a report by the Dell'Oro Group, a market research firm.** DSL is growing more rapidly than cable broadband but the number of DSL port shipments for the second quarter shrank to approximately 12 million. Both cable and broadband are growing by millions of ports each quarter. The research firm says the current dip in DSL port shipments is a correction. Looking into the future, the report states that the coming fiber-to-the-premises (FTTP) technology with its DSL links to consumers and businesses will likely give DSL ports a great advantage. Dell'Oro noted the idiosyncrasy of the North American broadband market where cable broadband is more widespread than DSL than elsewhere in the world where cable is a non-starter. Cable is primarily seen as a North American opportunity.

Hardware

- **Prices for synchronous DRAMs are declining due to inventory buildup at home appliance manufacturers.** DRAMs are mainly used in DVD recorders and flat-screen televisions. The prices of mainstream 256-megabit synchronous DRAMs stand at around US\$5.0-5.5 per unit, down US\$0.2., or 3.8% from June. Until May, the prices had been trending upward since last autumn due to a rapid spread of DVD recorders, flat-screen TVs and other digital home appliances. Home appliance makers also face the challenge of cutting costs of digital products amid intensifying competition. Semiconductor companies are prepared for a moderate price cut for the synchronous chips partly because the DRAMs for digital products are higher than those for personal computers.

Semiconductors

- **Many PC makers, Mercury Research shows, have opted for cheaper chips such as Intel's lower-speed Pentium 4 chips and AMD's Athlon XP chips, giving AMD the edge especially the systems designed for emerging markets such as China, India and Eastern Europe.** Overall, the trend toward lower priced desktop processors seen in the second quarter is fairly normal. The second quarter is often the weakest quarter of the year for PC shipments. The research group sees a general growth trend in emerging markets, which typically purchase lower-priced chips. PC processor market share figures include desktop, notebook and server processors. Desktop processors, whose shipments outnumber the other two categories combined, have the biggest effect on market share.
- **Creditors of Hynix Semiconductor Inc. approved the memory-chip maker's plan to set up a US\$2 billion chip plant in China with STMicroelectronics NV of Geneva.** This is a move expected to help Hynix remain competitive amid steep tariffs imposed by the U.S. and the European Union. Hynix's main creditor bank, Korea Exchange Bank, said creditor institutions approved Hynix's plan to set up a plant in Wuxi, in China's Jiangsu Province, which would give the company access into the lucrative Chinese chip market. Under the terms revealed by Hynix, the company and STMicro each will invest about US\$500 million in the chip plant. Initially, the plan will make memory chips utilizing eight-inch wafers. Hynix plans to expand the plant to produce chips using the next-generation 12-inch wafers, which allow more chips to be produced out of a single wafer and helps lower production costs. Hynix plans to secure additional funds of US\$1 billion in China.

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Japan

Mobile/Wireless

- **Japanese wireless carrier NTT DoCoMo has launched a service for smart-card handsets that allow customers to use their cellphones as a mobile wallet.** The Felica system enables people to make bank withdrawal and credit card purchases and even check in for some airlines' flights. In this system, information is sent from the cellphone over NTT DoCoMo's own networks. Another way is for the data to be transmitted to a special reader attached to cash machines and cash registers. Phones introduced for the service include Fujitsu's F9001C, the first cellphone with an embedded smart card to work with DoCoMo's wireless broadband network. Other handsets that can work with the service are those made by NEC, Panasonic, Sharp Mitsubishi and Sony Ericsson. The Felica system is based on the Sony smart-card technology of the same name. DoCoMo, with its 46.6 million subscribers is the world's largest cellphone provider and a testing ground for new services that get mainstream into the worldwide markets.
- **The number of subscribers to Vodafone KK fell by 3,100 in July, the first net decrease since the cellular phone service went national in October, 1999.** Last month, the company revised its discount scheme in which users could call other Vodafone users for just 5 yen (US\$0.05) per minute on weekends. In place of that old system, it introduced one in which subscribers get the next 30 minutes free after talking for five minutes. Subscribers are believed to have read this change as essentially a rate hike for people who make many short calls. Logging the largest net increase in subscribers for the second consecutive month is NTT DoCoMo. Its shift from the second-generation service to 3G (third-generation) FOMA service appears well as shown by the number of subscribers declining for the former and increasing for the latter. The increase in FOMA users is also believed to be due to DoCoMo's July release of handsets that allow users to make payments at convenience stores and other establishment stores.

Information Technology

- **Fujitsu Ltd. is targeting the information technology outsourcing business in Japan as a major source of revenue, the Financial Times reported.** Fujitsu, the largest outsourcing service provider in Japan and the world's fourth largest is aiming for double-digit growth in the business this year. Outsourcing is becoming a big business and will provide the strongest growth among Fujitsu's businesses. Given the low potential for growth in the Japanese I.T. market, Fujitsu, which already sells more servers overseas, will have to expand its server business in foreign markets even further to sustain future profits. To improve margins in servers, it is necessary to take a high global market share. Fujitsu trails IBM, Hewlett-Packard Co., Dell Inc. and Sun in the global server market.
- **Nine major high-tech companies will band together to increase efforts to prevent customer data leaks.** The companies will form a nonprofit organization to share state-of-the-art methods to block personal information leaks. This would be a shift away from their current practice of taking preventive steps separately. Member firms will disclose, by means of web sites and seminars, a wide range of expertise to each other on how to prevent data leaks. These companies, which include KDDI Corp, NEC Corp. and NTT Communications Corp., will invite other firms to join the group. A prerequisite for joining the group will be certification of the company's ability manage information security under the

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Ministry of Trade and Industry's scheme for Information security management system certification and registration.

Internet

- **Upcoming, an Internet-related service start-up, has merged with Ele, a software development start-up, to beef up services development and marketing capabilities.** Upcoming started offering Internet-based TV phone services called Homepage Phone 2 in 2002. It has 10,000 subscribers. In this merger, Ele will provide software development capability, which will be used by Upcoming to expedite the speed of new services development as well as help its marketing system. The new company will first develop a new Internet-based TV phone service in which each user will be able to show each other two images in addition to the one projecting their own images. All this will be via two cameras installed in their personal computers. The new service is to be called eLe-MIT and will be made available this autumn. The new company expects the service to be in demand for activities like net auctions. Although Upcoming is the surviving company, the new company created has adopted Ele as its corporate name.
- **Softbank Corp.said that its consolidated net loss for the April-June quarter was 17.8 billion yen (US\$161.0 million), about half of its loss in the same period a year earlier.** Overall sales gained 42% on the year to 147.3 billion yen (US\$1.3 billion). The company's mainline broadband services business generated 90% more sales due to the increased number of subscribers to the Yahoo BB Internet service. Revenue from the Internet advertising also grew. The company's loss was smaller than in the previous year. Operating loss was 3.8 billion yen (US\$34.4 million), 84 percent less than in the previous year. Softbank's online brokerage business fared well because of a robust stock market and the operating profit of its financial business increased nearly ninefold.

Hardware

- **Dai Nippon Printing Co. has introduced a grid computing system at its printing plant; Nippon Steel Corp is testing the same technology at its steelworks.** Grid computing is the system in which computers are connected so that they can act as one large computer. Used mostly in scientific fields such as astronomy and genome analysis, grid computing is starting to be adopted in corporate information systems, which require more stable operations. The result is a computing power of a supercomputer at about the tenth of the investment costs. The system will be able to immediately change the amount of raw materials procured or shift the order of production processes if an automaker or electronics manufacturer, to cite an example, suddenly submits additional orders or alters specifications. With the use of grid computing expected to be adopted by industrial firms, several companies started developing and marketing related software. NLI Research Institute has developed software that makes it possible to conduct risk analysis of financial assets in about one hour.
- **Apple Japan will start a sales campaign in which 1 percent of the purchase price of Apple products is paid to companies and individuals who run web sites through which consumers are linked to the company's online shopping mall and actually buy something.** During the special campaign period through Sept. 3rd, Apple Japan will pay a 2 percent referral fee to web site owners. The campaign will cover all products displayed on the shopping mall and will include personal computers and iPod portable music players. Apple Japan will also provide free image data on its banner advertisements on PCs and other products for the web site owners.

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- **NEC Corp. has adopted a “cell” system for its personal computer maintenance center so that a single worker can handle an entire repair process.** The new system aims to enhance the repair capacity from the level reached in 2002 to 50 percent. This is done by reorganizing the existing 23 lines into 26 cells, each cell composed of about 10 workers. Repair work for PCs is largely divided into three stages ---analysis of the problem, replacement of old parts and testing. In the previous “line” system, each worker dealt with a specific task.

Korea

Internet

- **South Koreans will be able to access portable Internet ten times faster than they are currently starting next year.** The reason for this is the homegrown WiBro service. The Ministry of Information and Communication said it would issue 2-3 WioBro licenses next February. Spectrum usage fees would be set at 3 percent of service providers’ annual sales. WiBro promises a downstream speed of around 1 Mbps and seamless mobile connectivity at up to 60 kilometers per hour. The downstream speed is about ten times faster than the current mobile connection to the Net via cell phone based on the CDMA 1x EV-DO (evolution data optimized) technology. This means people will be able to savor the benefits of Internet on the move at a speed similar to the current fixed line broadband with the advent of WiBro. According to the MIC’s recent survey, around half of respondents said they would utilize the portable Internet through cell phones, while 30 percent opted for note books, with the remainder preferring personal digital assistants (PDAs).
- **Korea’s Internet population reached the 30 million mark in the first half of the year, with the penetration rate exceeding 68 percent just ten years into commercialization.** This was according to government figures released recently. In annual research conducted through June by the Ministry of Information and Communication, 30.1 million people over six years of age accessed the Internet at least once a month. The penetration rate reached 68.2 percent, up by 2.7 percent from the end of last year. This has resulted in an increase of 1.5 million Internet users. The ministry is considering increasing the budget to expand Internet use in low-income households.

Telecommunications

- **Hanarotelecom Inc., Korea’s No. 2 fixed line telephone and broadband Internet carrier** mobile phone networks, said its first-half net income grew to 9.8 billion won (US\$8.5 million) on sales of 712 billion won (US\$618 million). Hanarotelecom, which controls 4.9 percent of the fixed-line market and 24 percent of the broadband market, reported 1.3 trillion won (US\$1.1 billion) in revenue and lost 165 billion won (US\$143 million) in 2003. Hanarotelecom has recently been expanding its fixed-line business with long distance and international call services in July.

China

Hardware

- **China’s largest computer maker, Lenovo, is selling basic PCs for between 2,999 and 5,999 yuan (US\$366-732) each.** In its latest promotion, the computer maker is targeting lower-tier, non-urban users who are highly price sensitive. The move comes amid efforts by the PC giant to refocus on its core business and defend market. The cut-price PC is possible because Lenovo stuck special deals with

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five suppliers: AMD, Taiwanese motherboard maker VIA Technologies, United States hard-disk drive manufacturer Maxtor and Hong Kong-listed monitor maker Proview International Holdings.

Internet

- **Tom Online will acquire Beijing-based Treasure Base, a mobile content provider specializing in sports.** The deal, the report says, could be worth as much as US\$64.4 million. Tom Online said its acquisition of Treasure Base should help earnings in the second half. The content provider is heavy on sports programming such as the Olympic Games, Formula One motor racing and the China Open Tennis tournament. Treasure Base has deals with 60 mainland television channels in 20 channels to supply sports-related SMS. Treasure Base earned US\$3.8 million in the first half and \$4.5 million between September 2002 and December last year. Tom online will pay between 3.5 and 4.5 times Treasure Base's earnings this year, and one to 1.75 times next year's profit, capped at US\$66.4 million.

Mobile/Wireless

- **China Mobile has suspended internet company Sohu.com as a supplier of mobile phone picture services for one year for unsolicited marketing to some customers.** Last week, rival Sina said China Mobile temporarily suspended its interactive voice response service after Sina offered a toll-free telephone sex service to mobile-phone users with the system. The move of China Mobile is seen as part of the crackdown by the state-controlled mobile phone company which is seeking to control aggressive marketing of mobile phone services across the mainland, the world's largest wireless market.

Telecommunications

- **China has built the fastest mobile data network in China but perceives a shortage of customers.** The mainland's second-largest mobile phone carrier is looking to promote data usage for its advanced but underutilized CDMA 1x network which is capable of supporting 50 million users but has less half that number. Many customers talk over the network but do not do anything else despite download speeds of about 40 to 60 kilobits per second. The 2.5-generation GPRS network operated by rival China Mobile offers speed of less than 20 kbps. Yet, consumers cannot differentiate between the two services. The problem that China Unicom's CDMA network faces is that there are not enough wireless data applications and services to stimulate the use.

Media, Entertainment and Gaming

- **Chinese online game operator Shanda Interactive Entertainment Limited achieved soaring revenues in the second quarter with diversified product offerings.** Nasdaq-listed Shanda said yesterday its revenues for the quarter more than doubled those of the same period a year ago to US\$36.5 million. Chen Tianquiao, the CEO of the biggest online game operator attributed the growth to the increasing numbers of game players and diversified product offerings. The number of Shanda's concurrent players grew by 16.8 percent quarter-on-quarter to 798,000 in the past quarter.

Taiwan

Semiconductors

- **Winbond Electronics Corp. reported a profit for the second quarter on stronger chip sales and a technology deal it signed with Germany's Infineon Technologies AG that will ensure the smooth development of a state-of-the-art semiconductor plant.** For the three months ended June

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30, the Taiwan maker of specialty memory chips posted net profit of NT\$1.8 billion (US\$52.8 million). Looking to the third quarter, Winbond said it expects demand for chips for personal computers to increase as a percentage of the company's sales. Winbond's long-term growth is centered on an advanced, 12-inch chip plant it is building in Taiwan with the help of Infineon.

- **The world's top two producers of custom-made chips for computers and other electronic gadgets announced record monthly sales in July.** The announcement underscores the strength of the semiconductor industry even as investors worry about an impending downturn. Taiwan Semiconductor Manufacturing Cp., the world's major contract chipmaker, said revenue in July rose 31% to NT\$23.2 billion (US\$679.3 million), from NT\$17.6 billion (US\$515.3 million) a year earlier. United Microelectronics Corp reported that its July revenue surged 60% to NT\$11.2 billion (US\$327.9 million), from NT\$7 billion (US\$205 million) a year earlier. TSMC and UMC, both of which make chips designed by customers such as Texas Instruments Inc. and Motorola Inc. are identified by many analysts as barometers of broader technology industry because of their mix of customers and products.

Singapore

Internet

- **Pacific Internet Limited, Asia's largest telco-independent Internet Communications Service Provider by geographical reach reported its 10th consecutive quarter of positive net income for the period ended June 30, 2004.** Its net income grew to US\$1.4 million or 11 cents per diluted share, compared with US\$33,000 or 0.3 cents per diluted share a year ago. Revenues grew to US\$ 25.0 million, a 3.1% increase over second quarter 2003. Its broadband revenues grew to US\$11.6 million, a 24% increase over second quarter 2003. Value-added services revenues grew to US\$ 2.6 million, a 25% growth over second quarter 2003. Cash generated from operations was US\$ 2.4 million.

Semiconductors

- **Software company BEDD has seized on the city state's concerns over falling birth rates and its obsession with mobile phones and launched a mobile-phone matchmaking service, also called BEDD.** Subscribers download the software to their phones, which are enabled with Bluetooth short-range wireless technology, and key in some personal details. These details include such data like who they are and the type of person they would like to meet. When a potential partner is in the vicinity the phone alerts them. The service can seek out other users within about a 20-yard range. There are other mobile-phone dating services in Asia: Singapore Telecom's MyCupic and Bharti Airtel of India's TrackUrMate. But BEDD is different from these because it uses Bluetooth phone-to-phone transmission, and not a central database.

Telecommunications

- **Singapore Telecommunications' quarterly profit before one-offs rose 16 percent.** This development is underpinned by surprising strength in its Australian Optus unit and a jump in emerging markets avenues. Slower year-on-year growth for Optus Mobile from the second quarter and lower margins due to Telstra's aggressive pricing strategy has negatively impacted earnings. Net profit at Southeast Asia's largest telephone company for the first quarter to June nearly halved from a year earlier when Singapore's largest listed firm booked a S\$703 million (US\$402 million) one-off gain on the sale of its postal services arm and a directory listings business.

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Philippines

Telecommunications

- **A boom in low-cost, prepaid phone cards could offer big payoffs to investors in some Asian telecommunications companies.** Wireless-phone operators, led by pioneers such as Smart Communications, a unit of Philippine Long Distance Telephone, have seen subscriptions rocket since they introduced “micro-prepaid” phone cards. These phone cards can be bought for as little as US\$0.50. The low-cost cards have opened a new segment of the telecom market and helped phone companies reduce customer “churn”. With the cards, users can now add small amounts of money to their accounts electronically. This makes customers less likely to drop out of a mobile service when run low on cash. It also saves the phone companies money because they do not have to pay for printing and distributing more cards.

United States / Canada

Hardware

- **Canada’s Research in Motion (RIM), which makes the popular Blackberry hand-held organizer, says it should double its number of subscribers to 2 million by end-2004 due to robust demand from small business.** Employees of small and medium-size businesses particularly in the United States, Hong Kong and Australia who want to access their email on the move are driving demand. Increased messaging and email usage in Europe as well as new applications for the Blackberry in the healthcare and real estate sectors in North America will also boost growth. Since last year, RIM has posted quarterly results that have consistently beat analyst expectations on strong demand for the flagship device. The device offers wireless access to corporate email, the web and traditional digital diary functions.

Internet

- **Google underwriters voice doubts on IPO.** Tensions are rising among some underwriters of Google’s controversial initial public offering. Some of the underwriters privately argue that the offering should even be delayed or restructured to make it appeal to a broader group of investors. However, the Internet search engine and its lead banking advisers, Credit Suisse First Boston and Morgan Stanley, have given no indication they are considering. A technology problem prevented Google opening on time a website where institutional investors could register to bid delaying the issue by nearly a week.
- **eBay has announced that it took a 25 percent stake in online classifieds site Craigslist.** Craigslist, launched in 1995, is a bare-bones classifieds site for people looking for almost anything. The list includes apartments, dates of baseball tickets in 45 cities. The site has created a network of online buyers and sellers while maintaining a simple look and remains free from banner ads. The company did not disclose any financial details but the investment will allow ebay to establish a stronger local presence. Local search advertising avenue is expected to reach US\$502 million in 2004, up from US\$408 million last year, according to market researcher, Jupiter Research.

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Media, Entertainment and Gaming

- **Plans to sell new hybrid CD/DVDs have hit legal and licensing snags and poses a threat to a mass rollout that the hard-hit music industry had been counting on to aid its recovery.** Record makers are enjoying a rebound after a three-year sales slump blamed largely on online piracy. Efforts to control piracy and the growth of legal web music services like Apple computer Inc.'s iTunes have contributed to the recovery. The "DualDiscs" is seen as a next generation product that marries the booming market of DVDs with the declining CDs. The idea is to put music on the CD side and concert, interview or recording session video on DVD. Retailers had expected the discs for the fourth quarter but industry sources said they believe the labels plagued by copyrights problem, playability and thickness issues, are now targeting early 2005.

Mobile / Wireless

- **InphoMatch, Inc. of the U.S. and Britain's Mobileway, Inc. announced that they would merge in a bid to tap into the growing market of wireless messages to mobile phones and other devices.** The deal has been described as a merger of equals as money will not change hands. The combined company, whose name will be announced next month, would have a total revenue of more than US\$100 million for the current fiscal year. Mobileway, a mobile content and network services provider, helps deliver content to wireless consumers while InphoMatch provides mobile messaging services and a global messaging network. InphoMatch delivers messages and other mobile content for mobile carriers, content providers and marketers. The combined company, formed out of what has been called a "straight merger of assets", will be based in Virginia and will have 200 employees worldwide.

Software

- **More than two years after promising to do something about the shortcomings of its Windows XP computer, Microsoft is about to release the biggest update ever for Windows.** The free upgrade is designed to make users safer from cyber-attacks by sealing entries to viruses, better protecting personal data and fending off spyware. The upgrade is dubbed Service Pack 2 revises less than 5 percent of the millions of lines of code that make up Windows XP but adds more value than any update company has ever done. Some of the nearly US\$1 billion that has gone into Service Pack 2 will also be used on future versions of Windows. It was "absolutely necessary" to give away the security advances now because of the barrage of attacks plaguing Windows-based computers. Microsoft said virtually all Windows XP users would be able to download Service Pack 2 regardless of whether they have a legal or pirated copy of the operating system.
- **Apple Computer has begun shipping a new program designed to let users create real-time motion graphics and unveiled a discount video-editing software bundle featuring its flagship Final Cut Pro software.** Motion was introduced first earlier this year and costs US\$299. The Production Suite, which includes Final Cut Pro HD, Motion and DVD Studio Pro 3, sells for US\$1,299. The production bundle, with an effective US\$500 discount, is designed to get people already paying for Final Cut to upgrade to a more comprehensive package.

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Europe

Mobile/Wireless

- **Danish telecom operator TDC is seeking new customers in the already saturated European market by launching low-cost mobile services.** These services are in partnership with UK's easyGroup under the "easy" brand in as many as 12 European countries. TDC said that it would create mobile virtual network operators which will rent excess capacity on established mobile networks and offer cut-rate service under a brand that millions of Europeans associate with easyJet's budget air fares. TDC, which did not disclose the terms of the deal, already has a virtual operator in Denmark called Telmore that has signed up almost 500,000 customers in the past three years. Analysts said TDC would challenge established European operators such as Vodafone and Deutsche Telekom's T-Mobile International AG.

Telecommunications

- **In Paris, France Telecom and Canal Plus have entered exclusive talks to sell their joint cable assets to a consortium led by Cinven Group Ltd. for about US\$613.8 million.** France Telecom is one of the world's largest telecom operators and Canal Plus is Vivendi Universal's pay-TV arm. The potential deal could be a witness to the entire French cable industry formally passing into foreign hands following U.S. cable giant Liberty Media Corp.'s purchase of market leader Noos from Suez SA.

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