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Wireless

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DAY **1**



Execs Say Data Use Is Proliferating

BY SUE MAREK

Mobile entertainment still may be in its infancy, but wireless executives speaking at yesterday's Mobile Entertainment Summit reported that consumers are becoming more interested in the new services, and two U.S. carriers said their data usage is beginning to soar.

"With mMode, we are seeing customers walk into the store and over 30 percent are signing up for data," says Liz Schimel, vice president of business development at AT&T Wireless. In addition, Schimel says the carrier is

seeing an average revenue per user increase of \$8 per month for those data customers.

Likewise, Chip Novick, vice president of Sprint PCS' consumer strategic business unit, says Sprint is seeing millions of downloads over its PCS Vision network, which he believes indicates customers aren't just trying out the service but are becoming regular users. "When customers can bring it to the handset, they are moving to a new paradigm," Novick says.

But that doesn't mean there aren't obstacles ahead. Panelist Donna



Campbell, executive director with Ericsson Mobility World, says some of the recent research Ericsson has conducted shows many consumers are less interested in some mobile entertainment applications when a price is attached to the service. "People want to use mobile entertainment features, but if they can't imagine how to use it, they don't think they'll pay for it," Campbell says.

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Powell, Tauzin Address Competition

BY MARK ROCKWELL

Wireless quickly is becoming Washington's best hope in a stubbornly stagnant telecommunications environment, some regulators say. But the hope is leavened with some doubt and indecision.

That's the conundrum facing two CTIA keynote speakers today. FCC



Tauzin: Wireless will become more important in the upcoming years.

Chairman Michael Powell and House telecom subcommittee head W.J. "Billy" Tauzin, R-La., are both trying to best decipher how to push telecom markets toward more competition. Wireless, both men will say in today's keynote remarks, offers a glimpse of what a robust competitive telecommunications

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Verizon Plots Seismic Shift In Its Enterprise Strategy

BY BILL MENEZES

Verizon Wireless wants to be all business at Wireless 2003. While much of the news being made at the show will center on consumer products, content and applications, the national wireless carrier plans to focus on a major new strategy aimed at significantly boosting its standing in the market for business customers.

Verizon also is prepared to announce at a noon news conference today its plans to commercialize the next-generation CDMA2000 1X EV-DO networks it has been

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War And Peace

BY BILL MENEZES

No, that headline doesn't refer to this editorial, thank you. It doesn't refer to the size of this year's *Wireless Week Show Daily* either, which is a bit more portable and has more useful news than the Tolstoy epic. And it certainly doesn't refer to the heft of self-proclaimed "weekly" wireless publications that these days carry as much weight as Lara Flynn Boyle.

The headline of this column refers to the air of uncertainty pervading this year's wireless industry convention, both in the outside world and – to a certain extent – inside the Ernest Morial Convention Center. What will help clear that uncertainty, at least inside the conference, are some clear expressions of strong strategic plans that service providers will follow to boost the industry beyond its current 50 percent-plus market penetration.

Outside of the convention, show goes came to New Orleans amid the greatest level of national uncertainty since Sept. 11, 2001, when many of this week's travelers were gathering at the Wireless IT event when the nation was attacked. What the next days and weeks hold for us still is unclear at this writing, but at least on opening day we hope to focus on business, not bombs.

The good news is that early signs in-

dicade show goers haven't pulled back from Wireless 2003 because of questions about whether they should be traveling or whether they can accomplish in some other way the business they usually do at this show.

One strong indicator was yesterday's Mobile Entertainment Forum, which had a packed house for its mobile content and applications-oriented agenda, just as it did for its run at the 2002 Wireless IT convention. Clearly the developers and distributors of digital content – both the garage startups and the majors such as AOL – continue to view wireless as a premier platform. And they have come to this show to work with service providers in figuring out the best way to take adoption of their products to the next level. An additional \$8 per month in ARPU from wireless content and apps is great; these guys already are thinking of ways to get that to \$15, and soon.

There are other good signs: Service providers seem to have a better handle on how to leverage broadband wireless platforms – fixed and mobile – to help expand their core businesses. That's reflected partly by the continued proliferation – aided by Intel's current marketing hype for its new Centrino mobile computing processor – of public wireless LAN purveyors here. Boingo Wireless is offering coverage, T-Mo-



BILL MENEZES, EDITOR IN CHIEF

bile is offering coverage and there's a hot spot at the pavilion shared by Toshiba and Accenture, which are offering a turnkey hot spot product and service.

Beyond Wi-Fi, take a close look at Verizon Wireless' announcement today that it is commercializing its EV-DO networks in Washington, D.C., and San Diego. This launch is a significant test of whether there is a near-term business case for broadband mobile networks.

Verizon's success in getting enterprise customers to make substantial wireless data commitments could foreshadow the industry's chances overall of getting market penetration beyond 60 percent.

That could go a long way toward addressing any uncertainties on the wireless side of the world. We'll leave the rest to the diplomats. **W**

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Don't have e-mail access? Drop off releases at *Wireless Week's* press room, room 255 in the convention center, or at *Wireless Week* Booth 1237.

Items should be submitted no later than noon the day before they are due for release.

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For the latest in CTIA Wireless 2003 show coverage, go to WirelessWeek.com.

With Or Without War, The Show Must Go On

BY ANNIE LINDSTROM

NEW ORLEANS—Although war with Iraq could break out during CTIA 2003, exhibitors were taking a business as usual attitude as they set up the global village of booths here yesterday.

Over the weekend, anti-war protestors demonstrated in the city's Jackson Square. A local taxi driver scoffed at reports that there are efforts under way to change the name of the French Quarter to the "Freedom" Quarter.

Still, tensions building around the world are not reflected on the show floor. Britain, Finland, Korea and Taiwan have pavilions showcasing their wireless technology and none of the 800 vendors that had reserved booth space canceled their plans to exhibit,

according to a CTIA spokeswoman.

"The show is roughly the same size as last year and international companies are still sending their CEOs. We are expecting a large contingent of attendees from China and Korea," said CTIA spokeswoman Kim Kuo. "The threat of war has been a possibility for months, but the wireless industry has continued to move forward."

CTIA operations manager Drew Cusick said none of this year's exhibitors had expressed any specific concerns about how things could change for them if a war were to begin during the show.

However, the threat of war is on people's minds. Members of a group of exhibitors from Taiwan said the threat of war had caused most of them to have second thoughts about coming to

the show, but they decided to travel to the United States anyway.

"We have a little bit of fear, but if a war starts, we will have to finish the show. There is nothing we can do once it starts," said one woman.

A man setting up a booth for a major international wireless vendor said his company has felt the impact of a possible war. "It has stalled some sales deals we had in the works with customers in Saudi Arabia and elsewhere in the Middle East," he said.

He added that he observed an impact on attendance at the 3GSM conference in Cannes, France, in late February. The show, which about 28,000 people attended, had a noticeable lack of attendees from the Middle East.

"Because of CTIA's North American focus, I don't expect to see the same kind of impact on this show," he said.

A spokesman for another international company said his company was proceeding with business as usual. "The possibility of war has not had an effect on us. All of our people are here," he said. "If war does break out, we have a global security group to provide us with advice on travel."

An account manager for a large exhibition services company said his wireless industry clients have decreased their show budgets, but the



Despite the potential for war in the upcoming days, show attendees and exhibitors are going ahead with plans.

Monday's Keynote Lineup

John Koo, chairman and CEO, LG Electronics

After serving as vice president and then president of LG Electronics, John Koo was appointed vice chairman and CEO in March 1999. He studied economics at Princeton University before joining LG International in 1973, where he worked as a director and regional director in the Hong Kong and Singapore offices. Koo also is chairman of several industry organizations, including the Electronic Industries Association of Korea, the Industrial Design Committee of Federation of Korean Industries and the Electronic Display Industrial Research Association of Korea. He is chairman of the board of directors of Zenith Electronics Corp. and vice chairman of the Korea Industrial Technology Association.

economic slowdown was more to blame for their decrease in spending than the threat of war. "But it's all interrelated," he said. "If a war breaks out and travel becomes more constrained, companies will be more likely to have partner companies represent them at shows taking place overseas."

He confessed that he, personally, is more aware of the need to keep abreast of developing situations. "If there are any acts of domestic terrorism in response to a war, I'll rent a car and drive home," he said. ■

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Security Gets Attention At CTIA Wireless 2003

BY MARK ROCKWELL

NEW ORLEANS—CTIA Wireless 2003 isn't Mardi Gras – security-wise at least.

That's probably a good thing, at least for CTIA. The organization's second major convention since the September 11, 2001, attacks and its chance timing alongside a looming war have kept security a major concern for show organizers. New Orleans might be a good place for it, however, according to show security personnel and others who have worked in the city for years.

The city is a "convention town" that hosts one of the largest security nightmares in the country every year – Mardi Gras. Any city that can pull off a Bacchanalia involving hundreds of thousands of people without a security problem is probably able to handle a convention of wireless executives, say some proud locals.

"Mardi Gras is a security nightmare.



New Orleans plays host to one of the largest security nightmares in the country – Mardi Gras. CTIA and the Ernest Morial Convention Center have put a wide-ranging plan in place, with some assistance from the city's police department.

New Orleans' police department has handled that event pretty well. An attack on a huge crowd like that is tempting, but it didn't happen, partly because

the NOPD knows how to handle things," says one local cab driver.

As the debate at the United Nations marches toward conclusion this week, CTIA and the Ernest Morial Convention Center have put a wide-ranging plan in place, with some assistance from the NOPD, says Marshal Robinson, president of Marshall Robinson & Associates, the company that oversees security operations. Robinson says his company is working somewhere between the two levels of its alert structure.

It's hard to gauge any differences between security levels between last year's Orlando show and this year's event, according to CTIA spokeswoman Kim Kuo, because both happened during relatively critical times since Sept. 11, 2001. "Orlando was the

first after Sept. 11. Security there was pretty tight," she says. "This year is comparable." CTIA contracted with the convention center for the highest level of security this year, she says.

That means plain clothes and uniformed security officers 24 hours day inside and outside the convention center, bomb sniffing dogs and security officers patrolling show entrances. The dogs should be familiar to attendees as they debuted last year in Orlando. Show security officials will have twice daily meetings with New Orleans police and daily briefings with federal security agencies, including the FBI, the Department of Homeland Security, and Coast Guard river and harbor patrols, Robinson says.

The average show attendee won't notice much difference in security from last year's show. They will see the bomb-sniffing dogs at the main entrances of the show during the three days of the exhibition. They also could have smaller packages investigated, he says. Uniformed New Orleans police officers, as well as uniformed security personnel, will be very visible.

The average attendee should be aware that guards and convention center employees are much more attentive to badges, as well as unattended items this year. There will be no coat check for attendees, except on the last day of the show, Kuo says, to cut down on the number of unattended packages.

Much more, Robinson says, is going on behind the scenes, including video surveillance and other precautions, but he says those details are best not revealed. **W**

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Ztango, MobileSpring Form New Company

Ztango is picking up MobileSpring's operations to form a company that will push cross-carrier messaging solutions. The new company retains the Ztango name and combines Ztango's wireless multimedia services with MobileSpring's cross-carrier messaging solutions, according to Vern Poyner, Ztango president and CEO.

The new company will be based in Reston, Va., where Ztango currently is headquartered. MobileSpring's offices in New York City will remain open, he says. Combined, the new company will have about 40 employees, with most based in the Reston office.

The combination of the companies brings together two large customer bases, Poyner says. Ztango's primary carrier customers are AT&T Wireless and America Online, while MobileSpring's include Cingular Wireless and Sprint PCS. The new Ztango will make a more attractive combination of cross-carrier messaging and content available to a wider carrier customer base, Poyner says.

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Nokia Pushes CDMA Portfolio With New Handsets

BY BRAD SMITH

Nokia is the world's leading handset manufacturer and has long dominated the GSM world. Still, it lagged behind in the CDMA market, but in recent years the phone maker has begun placing increasing emphasis on that technology.

In line with those efforts, Nokia is unveiling five new CDMA handsets at CTIA Wireless 2003, all designed for carriers in the Americas. The handsets range from mass-market to mid-range "classic" models.

Nokia earned its bread and butter in the GSM market and may have neglected CDMA until the last few years,

admits Soren Petersen, senior vice president and general manager of Nokia's CDMA handset division. But the Finnish company has hired 400 people for its CDMA handset division, most of them in San Diego, and has



3586i

ramped up its production portfolio.

The five handsets are all for CDMA2000 1X networks, have color screens and Java support. They include the 3.1-ounce 6585, the tri-mode 3586i and three models in Nokia's 2200 series, the 2270, 2280 and 2285. The latter three are basic voice-centric handsets and are the same except they have 1900 MHz, 800 MHz or dual-band plus analog radios, respectively.

The 6585 is expected to ship in the third quarter, while the other models are expected to be available in the second quarter. No carrier deals were announced.

Petersen, who ran Nokia's global mobile phone business until taking over the CDMA sector in 2000, said the company has decided to "drastically" increase resources for CDMA phones. Nokia didn't have its first CDMA phone until 1997 but has shipped nearly 25 million of them now with about two-dozen models, he said.



6585

Nokia aims to provide an alternative to the traditional CDMA handset market, Petersen said. Although he declined to provide specifics, he hinted that Nokia would have more CDMA handsets this year.

"We're not done in bringing resources on board," he said. "We will continue to fill out our portfolio."

The 6585 model, Petersen said, is one of the lightest CDMA2000 1X phones in the Americas and will be marketed as a fashion phone with sleek styling, an integrated FM radio and a built-in speakerphone. It also has an optional camera attachment.

The 3586i phone has polyphonic MIDI ringtone support, graphical caller-ID icons and optional "Xpress-on" luminescent covers. It also has voice dialing and PIM functions.

All the handsets follow Nokia's efforts "to run with well-used globally adopted standards for how downloads

are handled or MMS is run," Petersen said. "We don't want CDMA to be a walled garden."

Petersen said the CTIA show introductions show Nokia's commitment to the market.

"There aren't a lot of companies that can launch five new products and not be done," he said. "On top of that, these are all different from anything we've had before. These are new designs for all the models. We didn't take an old form factor and try to put new software in it." WW



2270


Monday's Keynote Lineup

Jorma Ollila, chairman and CEO, Nokia Corporation

Jorma Ollila has served as chairman and CEO of Nokia and chairman of the group executive board since 1999. Prior to this appointment, he worked in a variety of positions at the company, including president and CEO, deputy member of the board of directors, senior vice president of finance and vice president of international operations. He also was president of Nokia Mobile Phones. From 1978-85, he worked for Citibank. Born in Seinajoki, Finland, in 1950, Ollila earned a master of political science degree in 1976 from the University of Helsinki and a master of science in economics in 1978 from the London School of Economics. In 1981, he earned a master of science in English from the Helsinki University of Technology, where today he is chairman of the advisory committee.

Apart from his work at Nokia, Ollila is a member of the board of directors of Ford Motor Company and of the European Round Table of Industrialists. In 2002, he was made an honorary citizen of Beijing.





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It Might Be Cloudy Outside, But Sun Shines On WDU

BY BRAD SMITH

Analyst Andrew Seybold, known for his “dose of reality” approach to wireless data, offered some pointers Sunday about things to watch for during the CTIA Wireless 2003 show.

First, Seybold told a crowd at the pre-show Wireless Data University, be aware that technology demonstrations at the show may dazzle but aren’t necessarily ready to be deployed.

“You will see a lot of demonstrations on the floor,” he said. “A lot of it is real and a lot of it works. But I caution you that one notebook computer to one cell site doesn’t make a network.”

And second, pay close attention to some announcements Qualcomm will make about its CDMA2000 1X EV-DO technology. Seybold said he was sworn to secrecy about the EV-DO announcements but that Qualcomm “will be doing some very interesting things.”

EV-DO is the high data rate technology being used by Korean carriers, as well as Monet Networks in several small cities in the United States. It provides theoretical data rates up to 2.4 megabits per second, although normal use is around 700 kilobits per second.

Seybold and fellow analysts Barney Dewey and Alan Reiter gave overviews Sunday of segments of the wireless data industry, including the wide-area technologies used by the cellular carriers

and local area technologies such as 802.11.

Reiter said in his discussion of 802.11 that the market rollouts remain somewhat of a mess despite the energy and hype surrounding the technology.

“The thing I like about Wi-Fi is that all the tools are there to start the innovation,” he said. “Think about the Internet, which is far from perfect, but still all the tools are there.”

“The thing I like about Wi-Fi is that all the tools are there to start the innovation.”

While last week’s announcements by Intel about its Wi-Fi Centrino platform have illuminated the hot spot market, Reiter cautioned there are places where Wi-Fi makes sense and places it doesn’t. It makes sense in corporate offices, college campuses, airports, convention centers and hotels, he said, but not in coffee shops, shopping centers and parks.

Seybold, noting there are 4,000 public hot spots now and 20,000 more have been promised in the next two years, said it still is too difficult for end-users to use all of them.

“If I want to use a hot spot everywhere I go,” Seybold said, “I need eight or nine separate agreements with every provider.” ■

Monday’s Keynote Lineup

Thomas Engibous, chairman, president and CEO of Texas Instruments Inc.

Thomas J. (Tom) Engibous is chairman, president and CEO of Texas Instruments Inc. He was elected to the board of directors and named president and CEO in 1996 and elected chairman in April 1998. Prior to his 1996 appointment, Engibous was corporate executive vice president and president of the semiconductor group. He joined the company as an integrated circuit design engineer in 1976, the same year he earned a master’s degree in electrical engineering from Purdue University. He has spent his entire operational career in the company’s semiconductor business.

In addition to his duties at Texas Instruments, Engibous is chairman of the board for Catalyst, a trustee of Southern Methodist University and a member of the Purdue University Engineering Visiting Committee. He also is a member of the board of directors of J.C. Penney Co. Inc. and a director on the Dallas Citizens Council, the Southwest Medical Foundation, the U.S.-Japan Business Council and the National

Center for Educational Accountability.

Christopher B. Galvin, chairman and CEO, Motorola

Christopher B. Galvin began working summer jobs at Motorola in 1967 and joined the company full time in 1973. During the next decade, he held positions in sales, sales management, marketing management and product management in the company’s Communications Sector, the two-way radio business in that era. In 1983, he joined management ranks at Tegal Corp., a Motorola subsidiary and manufacturer of plasma etching and stripping equipment for the semiconductor industry. He became vice president and director of the Communications Sector’s paging division in 1985, ultimately moving to senior vice president and chief corporate staff officer in 1988. Also that year, he was elected to the board of directors of Motorola Inc. and in 1989 named an executive vice president.

In the 1990s, he joined the office of the CEO as senior executive vice president and assistant COO, was elected president and COO, then CEO. Galvin has been chairman of the board of Motorola since 1999. ■

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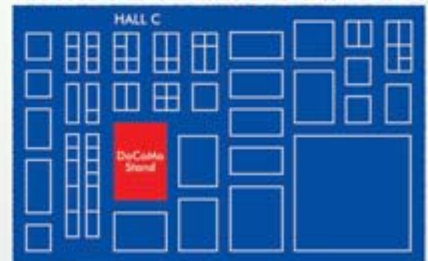
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Can EDGE And Wi-Fi Live Together?

BY BRAD SMITH

Expecting that EDGE and Wi-Fi not only are compatible but complementary, Israeli technology company Comsys Communications & Signal Processing Ltd. is demonstrating streaming video at CTIA Wireless 2003 using its EDGEware platform.

All three major GSM carriers in the United States are expected to launch EDGE later this year or in early 2004 as their next generation high-speed data network implementation. It provides optimum data rates of 473 kilobits per second, giving it 3G credentials for wide area networking.

Ron Cohen, president and CTO of Comsys, said EDGE carriers can use WLAN technology to provide subscribers with local-area networking at data rates of 11 kbps or higher. The two technologies can be integrated for a full indoor and outdoor wireless data

experience, he said.

Comsys is introducing its EDGEware platform at the show (Booth 6149), showing its use with streaming video. The company's software is used in both base stations and handsets, using digital signal processing to maximize network resources. The software is being used by several customers, including Texas Instruments, Cohen said.

Comsys EDGEware, he said, makes it easy and inexpensive for chip vendors to upgrade their existing GSM/GPRS baseband chips to EDGE.

"With three major U.S. wireless carriers committed to EDGE and with the phenomenal increase in Wi-Fi coverage, it is natural that the market work toward creating a union between those two technologies," said Comsys CEO Elkana Ben-Sinai. "EDGE can offer broadband rates that are needed by

mobile enterprise users within the nationwide coverage afforded by cellular networks. Comsys' strategy of focusing on EDGE-integrated solutions with

other technologies is proven, and we are well positioned at the critical juncture to enable a successful EDGE/WLAN interface." ■

BREW Browser And DRM Unleashed

In a pair of announcements at CTIA Wireless 2003, the Japan-based mobile technology company Access said its NetFront 3.0 handset browser now supports Qualcomm's BREW platform and its Premium Content Subscription Server enables standards-based digital rights management.

The NetFront browser is on handsets used by 28 million subscribers, most of them on NTT DoCoMo's i-mode service. It also is on handsets used by Sprint PCS and several European carriers and is available as a download from Handango. It also is used on Palm OS devices.

Access said the latest version not only is WAP 2.0 compliant but also renders HTML, Java scrip and Web pages with tables. It is the first browser endorsed by Qualcomm for the BREW platform.

The company also said its PCSS has DRM support based on the Open Mobile Alliance 1.0 specification. The server supports Java 2 MicroEdition, premium MMS, browser content and polyphonic ringtones and also has features facilitating the content review and approval process, as well as content management.

Several carriers are studying PCSS, Access said, and are expected to implement DRM in the second half of 2003. —By Brad Smith

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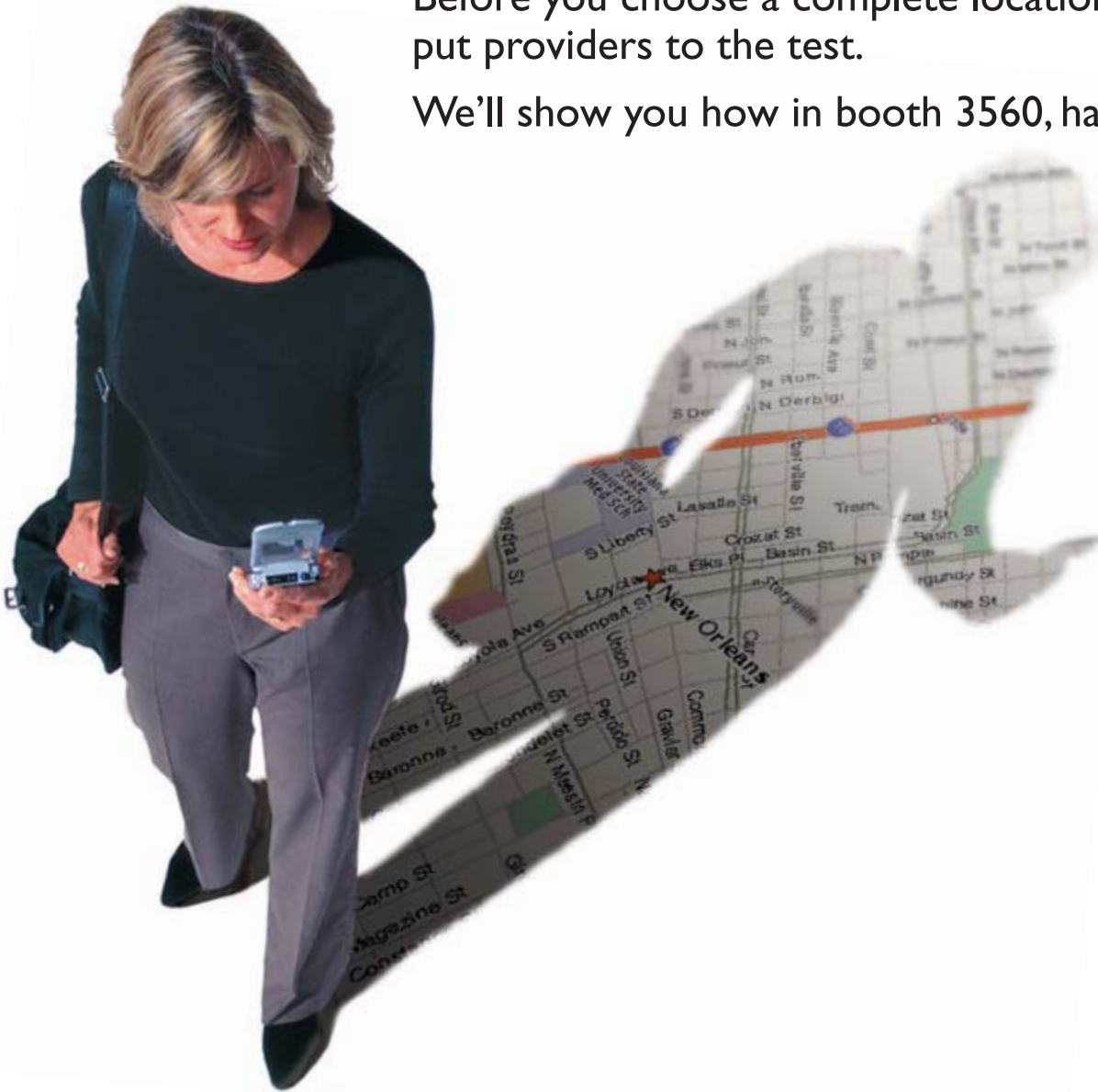
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Airborne Introduces Lemonade Tycoon

BY LYNNETTE LUNA

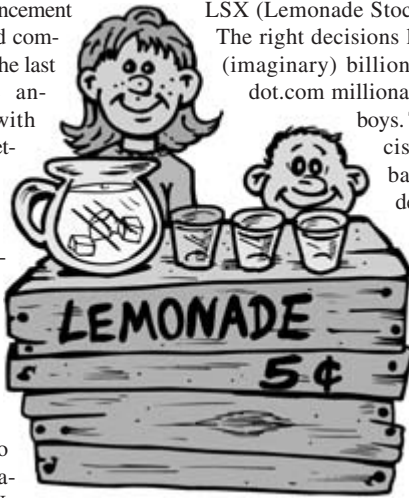
Airborne Entertainment made its first major foray into the BREW platform arena with its introduction of Lemonade Tycoon, a popular PocketPC and Palm game that allows players to turn a sidewalk lemonade stand into a global mega-corporation.

Lemonade Tycoon is the fourth major announcement the Montreal-based company has made in the last month. Airborne announced deals with A&E Television Networks, Comedy Network Unwired in association with The Comedy Network in Canada and Dennis Publishing, publisher of *Maxim*, *Stuff*, *Blender* and *The Week* magazines. The company also has a partner relationship with the Na-

tional Hockey League and HBO.

Lemonade Tycoon leads players through the ups and downs of the business world. Players must pick the best location for their lemonade stand, test different recipes, keep an eye on the weather and other trends, set prices, manage inventory, buy equipment and then watch the results of the company's value against other players on the LSX (Lemonade Stock Exchange).

The right decisions lead to untold (imaginary) billions and former dot.com millionaires as house-boys. The wrong decisions lead to bankruptcy and destitution.



Airborne describes itself the publisher of top-flight branded wireless entertainment. Company President Andy Nulman, a for-

mer TV producer who has managed to use his connections in the entertainment industry to help his company sign on big-named customers, said his company is testing multimedia messaging services (MMS) with carriers. Content will include applications such as graphical images from *Maxim* and sports images. Airborne already delivers applications via SMS, WAP, BREW and J2ME. Airborne is working with all carriers in North America, Nulman said.

However, Nulman is quick to point out that Airborne doesn't specialize in technology. "We take brands across

technology," he said. "That is our point of differentiation with entertainment companies." Content may range from trivia questions associated with HBO's popular "Six Feet Under" cable show to SMS alerts from A&E regarding a famous person's birthday.

Companies such as Airborne are finding a useful niche within the wireless industry. Because of the dot-com bust, large entertainment companies have become leery about dedicating extra resources to wireless. "Even companies that have massively developed Internet divisions are stilling coming to us," he said. "Wireless is a different ball game. There are too many complexities at the handset level." ■

LightSurf Delivers MMS Platform

Multimedia messaging services mostly have been devoted to picture messaging until now, but that will change as more services become available, according to Robin Nigor, marketing vice president of LightSurf Technologies.

LightSurf is announcing its LightSurf 5 Multimedia Messaging Platform at CTIA Wireless 2003, which Nigor said includes carrier-grade services operators can use for expanded data offerings. The services include push and pull media alerts, media and message album storage, a download gallery, third-party content, media delivery, m-commerce capabilities and support for legacy and other non-MMS devices.

LightSurf also is announcing a partnership with Motorola to market the services to carriers, initially in Europe. Motorola will bundle the LightSurf services platform with its MMS infrastructure. The platform also has been proven to work with MMSCs from Nokia, Ericsson and LogicaCMG, the company said.

LightSurf 5 takes the Santa Cruz, Calif., company deeper into MMS services, Nigor said, by offering more than its picture messaging platform. One of the features of the platform is that it makes MMS services available to legacy handsets, including non-MMS phones, he said.

As operators integrate the content into their network, we have an audit trail for billing and digital rights management."

"In the beginning it was taking a picture and sending it to another phone," Nigor said. "Today, we are offering all sorts of push and pull content services. As operators integrate the content into their network, we have an audit trail for billing and digital rights management."

Analyst Andrew Seybold said he expects picture messaging and MMS to be a leading application for carriers. LightSurf's MMS platform, Seybold said, allows carriers to maximize their wireless data revenue with "ready-to-deploy revenue generating services that increase ARPU and drive subscriber growth."

LightSurf's managed service customers, which include the carriers O2 and Sprint PCS, plus Kodak, have had their service upgraded to the LightSurf 5 platform, Nigor said.

—By Brad Smith

Gemplus Nabs Three Content Delivery Deals

Smart card provider Gemplus announced that three new American and international operators selected the company's activation and content delivery solution. The company signed deals with Mobility Ltd. of Bermuda, CellularOne of NE Arizona and Corr Wireless.

Gemplus, the world's largest SIM card provider according to Dataquest's 2001 figures, targets wireless carriers that are migrating from TDMA systems to GSM networks. The company offers a complete migration package that includes SIM cards, over-the-air activation capability and download provisioning of customers.

"We realized that with the migration from TDMA, there are a number of things these operations have to cover," said Jean-Louis Carrara, vice president of marketing and technical consulting with Gemplus. "We are providing product management and a turnkey environment so that GSM carriers have little to take care of."

Gemplus also aims to create value-added services by packaging the SIM card services with content, which includes news from Reuters, weather information, ringtones and icons, gaming, instant messaging and its newest one, sports. The solution is ideal for smaller players migrating to GSM wanting to immediately jump into the wireless data game, Carrara said. According to statistics from Gemplus, European operators report the Gemplus' content services are creating a jump in average revenue per user (ARPU) of about 3 percent to 4 percent for a proportion of subscribers.

The company's existing U.S. customers include AT&T Wireless, Cingular Wireless, T-Mobile and Nextel Communications Inc. Small U.S. TDMA carriers are beginning to migrate to GSM, following AT&T Wireless' and Cingular's lead, to take advantage of GSM roaming revenue. Gemplus also is targeting TDMA operators in Latin America looking to migrate to GSM systems. —By Lynnette Luna

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Higher-speed Data News Deserves Attention

BY ANDREW SEYBOLD

While you are here at CTIA's Wireless 2003, pay attention to the folks who are talking about and showing higher-speed data networks and services. Pay close attention to announcements from Qualcomm, the EDGE contingent and, of course, the wideband-CDMA/UMTS camp.

Wireless data is now available in most of the world at speeds between 10 and 80 kilobits per second. In some places, including South Korea where there are CDMA2000 1xEV-DO networks and in Japan where NTT DoCoMo's W-CDMA network is up and running, speeds are considerably faster.

You will hear about ever faster data speeds. Both the GSM/GPRS and CDMA2000 camps are planning to deploy higher-speed networks. You might ask why this is important to the wireless industry because wireless data uptake in most of the world (with the exception of Japan and Korea) has been lackluster at best. Well, these new, higher-speed networks have sparked the interest of IT professionals. With faster speeds it will be easier to give their customers (users) who are in the field with their notebook computers a mobile experience that is close to that of sitting at their desktop machines.

All of us in the wireless industry know that the data speeds that are available today make wireless data for both business professionals and consumers a reality right now. However, many IT folks are waiting for "real" wireless data services. These "real" data services will be at higher speeds and they will be deployable with little effort on the part of the IT department to give mobile workers armed with a notebook computer and a virtual private network access back to their company's information stores—without swamping the help desk with calls from unhappy road warriors.

Anyone who has been involved in the wireless industry for any length of time—as well as those who use wireless data every day they are on the road—know that what the IT folks want already is available. But few are willing to spend much time or effort on their corporate wireless data strategies

until the data speeds reach the point where they are about equal to what they can provide to their office and home-bound (with DSL and cable modem) workforce.

This does not mean we should stop trying to sell the corporate folks what is available today. But it does mean that as these new, higher-speed systems start coming online, it will be easier to get the IT manager's attention and the mobile workforce will begin pressuring IT in earnest. Wi-Fi and Wi-Fi hot spots are great as far as they go—they are few and far between—but they do give corporate users their first taste of what high-speed wireless connectivity can be like. They become hooked on the experience.

So pay attention. You are going to hear some really interesting things

about network speeds, new wireless devices and when all of this will begin being deployed in the United States and elsewhere. It has taken the industry a while to get past the hype and it will be a while longer before higher-speed networks are up and running. IT folks are overworked, underpaid and skeptical, and they have been waiting for wireless networks that are fast enough and easy enough to be used by their mobile workers without causing their IT departments any grief. If you look at Korea, Japan and, by the way, Duluth, Minn., you will see we are close to ready to welcome IT folks to our wireless world.

Pay attention, listen closely, ask questions. I am sure that you, too, will come away with the realization that high-speed data networks are ready for prime time and will become more readily



available in various parts of the world as we move through 2003 and 2004.

Andrew Seybold heads the Andrew Seybold Group and is a regular contributor to Wireless Week.

Training Program Targets Sales Associates

BY SUE MAREK

As wireless phones and service plans become more complicated, so does the job of the wireless sales representative. Helping to unravel that complexity is one of the primary goals of the Association of Wireless Professionals, an organization formed to help elevate professionalism among wireless salespeople.

To that end, AOWP joined forces with CTIA to host a sales training conference in conjunction with the CTIA Wireless 2003 conference. Held on Sunday and Monday, the training course coaches conference-goers on wireless fundamentals such as technology, equipment, providers, calling plans and services. In addition, the course instructs attendees about wireless data and future technologies. At the end of the two-day course, participants must pass an exam to receive their certification.

"This certification program is based upon a passing score rather than just hours in a seat," says Bill Cullifer, a member of the board of directors of AOWP.

Cullifer, a former sales professional with McCaw Communications and AT&T Wireless, believes this type of program is necessary because it provides some standards for wireless sales associates. "Certification allows people to demonstrate their professionalism," Cullifer says. "It's good for the person getting certified and for the consumer."

By getting certified by this independent nonprofit organization, Cullifer believes that sales associates will be able not only to advance in their careers but also to make more money. "There's certainly statistics that prove the higher your knowledge, the higher your income," Cullifer says.

AOWP expects about 20 to 50 people will take the course. Cullifer says that because this is the first time AOWP has offered the training course in conjunction with CTIA, the group is pleased with this number of participants. "This is a relatively new concept and salespeople are not typically the ones that get approval to travel in a down economy," Cullifer says.

Nevertheless, AOWP chose to debut its certification class at CTIA because sales professionalism is becoming more critical to carriers, especially as they introduce their next-generation data products. In addition, as carriers place more emphasis on combating churn, many see the sales professional as playing an important role in keeping customers happy.

Though many carriers provide their own sales training, Cullifer sees this program as complementary, not competitive, because AOWP is vendor and carrier independent. "My sense is there's a need in the marketplace for education and training," Cullifer says. "Carriers have training, but it's not standardized. We are setting the standard for what it means to be a sales associate." WW

"Certification allows people to demonstrate their professionalism. It's good for the person getting certified and for the consumer."

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Weighing In On Push-To-Talk

BY MARK LOWENSTEIN

One of the major areas of “buzz” at this year’s CTIA Wireless 2003 conference is the accelerated activity by the major carriers to offer a push-to-talk service competitive to Nextel Communications. Verizon Wireless, Sprint PCS and AT&T Wireless all have announced they will either have or be testing a PTT service by the end of the year. Important vendor agreements also have been announced: Ericsson, Nokia and Siemens have joined to develop a common standard for PTT over GPRS in conjunction with the IMS standard. And recently, Comverse announced a partnership with Mobile Tornado and demonstrated a PTT solution.

Much of the discussion has centered on real-time voice communication over the IP network:

Call set-up time. Reducing the call set-up time is extremely difficult when the handset is in “dormant” mode and needs to be “woken up.” Nextel’s call set-up time is 0.5-0.7 seconds. The best IP-based solution is around three seconds.

Voice quality. In a GPRS network, this issue is extremely important be-

cause operators need to pre-allocate time slots to deal with data traffic. This limited resource allocation might require specific QoS products to be installed, either by infrastructure players or the PTT vendors.

On session latency, anything more than two seconds is unacceptable and sounds like the delay encountered in bad satellite calls. Nobody has got this under a second, but it’s getting close.

Handset availability. Handset clients will have to be tightly integrated with the PTT vendor applications in order to perform efficiently. Additionally, handsets will have to be equipped with a PTT button, speaker-phone, enough memory and an API to access the address book and other internal resources.

Interoperability. On the one hand, lack of interoperability is a major Nextel advantage. On the other hand, much like SMS, interoperability might be key to PTT becoming mainstream.

Key vendors in the PTT race include:

Qualcomm. Exclusive licensing agreement with Nextel for its Qchat product, which will be commercially available later in 2003 for CDMA/1X. Its deployment is limited to locations

outside of North America for another two years.

Winphoria has developed its Global Instant Rendezvous based on its soft-switch solution. The product is a server-only solution and requires a third-party client deployment.

Comverse/Mobile Tornado are offering an end-to-end solution called IPRS that claims it supports provides short call set-up duration (less than two seconds); minimal latency; and interoperability with other networks. It can be deployed in “server-less” mode, which improves time to market.

Sonim Technology. Supports GPRS with a chip-based client design, which benefits power consumption among other attributes. A “non-intrusive” operation mode allows the recipient to accept or reject a PTT request.

Nokia. Has modified its TETRA solution for the GPRS world. There also is its standards-based activity announced in Cannes, France.

Togabi. Its differentiation is a focus on the client in handsets (via a SIP stack on the phone) and in being close to the PDSN.

Market potential for PTT certainly extends beyond today’s blue-collar



stronghold. As evidence of interest in the youth/family market, Motorola sold nearly 1 million two-way radios last year based on the Family Radio Service standard. If PTT can be successfully achieved over IP, I also envision enhancements over the basic “walkie-talkie” service, such as presence, IM & voicemail integration.

Mark Lowenstein is managing director of Mobile Ecosystem and a regular contributor to Wireless Week. To subscribe to his newsletter, Lowenstein’s Lens, visit www.m-ecosystem.com.

Take That: Multi-Player Games Strike

BY BRAD SMITH

Multi-player games have found a frenzied audience of gamers on the Internet and some expect the same thing could happen when those games become available on a wireless device.

Gaming generally is expected to be a hot-ticket item for wireless networks. Strategy Analytics has estimated that downloadable games will be the fastest-growing consumer application in the world this year, generating \$2 billion in revenues by the end of 2003.

Jamdat Mobile, probably the largest game provider for wireless networks in the United States, is betting on multi-player games generating enthusiasm in the market place. CEO Mitch Lasky says 25 percent to 30 percent of the company’s games will be multi-player by the end of the 2003, at least double the rest of the industry.

Jamdat is announcing its first multi-player wireless game at CTIA Wireless 2003, a martial arts game called Fudomyo that actor Steven Seagal helped de-

sign. Seagal’s image also is in the game, as a teacher.

The game will be offered initially by Verizon Wireless, which has said it sold more than 1 million handsets in 2002 that support downloadable games. Verizon uses Qualcomm’s BREW platform but it will also be available for Java and smart phones running the Nokia Series 60 and Microsoft operating systems.

The Fudomyo game has various levels of expertise, allowing users to train in a single-player mode where they learn special moves and then use them to advance in one-on-one competition with other players on the network. The application also allows players to save a favorite opponent list and challenge them.



Jamdat also announced the availability of two downloadable single-player games called Pitfall and Jamdat Racing. Those games also are available on Verizon Wireless.

In addition, Jamdat says it will provide the wireless channel for the IGN gaming site on the Web (ign.com). The channel will provide online news about wireless gaming. IGN gets about 8 million unique viewers a month, Lasky says.

Jamdat’s games will be demonstrated in a half-dozen booths at the show and also are expected to be featured during a keynote today by Intel President Paul Otellini.

Lasky says Fudomyo is unusual among wireless games because of its size, more than 10 times those that are normally available on Java or BREW. It was designed so that it dynamically brings down additional assets and characters as the gamer progresses.

“There are 16 mythic quests you go on and each level gets you to learn a new fighting style for the next level,” Lasky says. He says it uses some of the same features as Jamdat’s Gladiator WAP game, which had more than 1.5 million unique users. //



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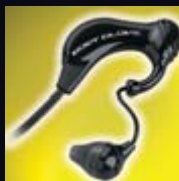
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FilmFest Brings Small-format Content To CTIA

BY SUE MAREK

Similar to how Park City, Utah, is home of Robert Redford's Sundance Film Festival, CTIA is the new home to the World's Smallest Film Festival. Los Angeles-based production company BigDigit Media is organizing the festival, which is a first for the conference.

Open to all CTIA attendees, the film festival showcases mobile content from different categories including drama, comedy, music, animation, episodic, instructional, commercial and sports. Judges will rate the submissions based upon creativity, entertainment value, utility and optimum use of existing technology. In addition, CTIA visitors can screen and vote on entries as part of the Best in Show awards that will be announced Tuesday afternoon.

According to Beau Buck, co-founder and CEO of BigDigit, he and fellow co-founder Tim Scannell came up with



the idea for the festival after realizing how technology was increasingly making the potential for compelling content via a mobile phone a reality. "If someone walked into a RadioShack store and had a choice between a phone

that does the usual stuff and one that showed you some compelling content, I think they would buy the one that could show you content," Buck says. "We decided to create a promotion that would attract compelling content."

Buck says the festival has generated a lot of interest, particularly from independent film makers who are not constrained by some of the legal limitations that hinder many of the bigger studios. "We have found that the stumbling block for some studios are the legal issues. Bigger studios didn't fully anticipate this type of use of the content," Buck says.

Though this is the first year for the festival, it has attracted the attention of some well-known film producers, including Bonnie Palef, who was co-producer of the movie "Moonstruck." Palef has submitted two pieces to the film festival. "There's some real talent here," Buck says.

About 75 to 80 film makers will be competing in the festival, and all are hoping that a content aggregator or carrier will see their work and some day make them available on mobile phones. ■

Runway Features Latest In Wireless Fashions

Professional models will sport wireless wearables at the Fashion In Motion runway show daily at CTIA Wireless 2003. CTIA event organizers describe the show as "avant-garde" and "high energy" illustrating the latest trends in wireless fashion. Scenes from last year's event are shown below.

Show times are 11:30 a.m. and 2 and 4 p.m. Monday; 11:30 a.m. and 2 and 4 p.m. Tuesday; and 11 a.m. and 1 p.m. Wednesday. Here's a rundown of some of the products featured at this year's event:

Virtual Personal Viewer: This unit clips onto your glasses and a 17-inch virtual monitor appears, floating six

feet in front of you. When you're done, unclip and store.

Super Screening: Intel introduces a viewer for vertical enterprise usage, with a slide-out keyboard and a full VGA touch screen display for browsing. Users, such as healthcare professionals, can use wireless connectivity coupled with the display for viewing of critical graphical data and images.

Pocket Super Viewer: The SV-3 Viewer mounts on your eyeglasses so you can view pictures, maps, GPS or surf the Web on a full-size screen—hands free.

Wildseed: For the youth market, the phone combines tailored features, in-

cluding FM radio, texting keypad, coded lights and interchangeable skins for adding new features.

Night Vision Plus: Night vision goggles are now wearable computers for defense and security workers. They also can be hooked up to desktops for daytime viewing.

ThinkShoe: This is running shoe that continuously adapts cushioning and support in response to users' motions. The footwear technology is designed to minimize foot stress and increase athletic performance through an embedded computer and sensor system.

Smart Phones: A smart phone with integrated camera. Mitac brings the ca-

pability and performance of PDAs to a phone.

Accessibility Accessories: A featherweight computer with an advanced head-mounted display delivers instant access to e-mail, Internet, music, videos, games and more.

Wearable Scanning System: This radio-enabled wearable computer with mini barcode reader enables users to transmit and receive data wirelessly.

Hiptop Communicator: Surf the Web, send and receive e-mail, make wireless calls, chat on AOL Instant Messenger, play games, take and e-mail photos with this all-in-one wireless device.

Headsets: A Bluetooth wireless headset features voice-activated calling and an answer/end button on the headset. ■



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E911: Beyond Discovery

BY MARK ROCKWELL

This year's CTIA show will mark a watershed year for wireless E911, according to some wireless industry officials.

"This is the year we're beyond discovery and into deployment" of wireless location-based E911 systems, says Mike Amarosa, vice president at E911 wireless location technology company TruePosition and former E911 communications director for New York City.

After years of wrangling and what became technological experimentation, carriers are beginning to coordinate and install E911 Phase II technology and not just talk about it, Amarosa says.

This week's CTIA Wireless 2003 will be one of the first conventions where carriers are talking installation, not conceptualization, he says. Those carriers are Amarosa's, and other E911 technology suppliers' targets in

New Orleans.

The emphasis on wireless E911 seems to be snowballing this year. For instance, when Amarosa testified before the Senate Commerce Committee in early March on E911 technology and how it can best be used and installed, John Melcher, deputy executive director of the Greater Harris County, Texas, 911 Network, also spoke. TruePosition is providing some of the gear used in the Harris County deployment. Melcher is, additionally, president of the National Emergency Number Association, which is fast becoming a lightning rod for E911 regulatory issues. TruePosition is exhibiting the location technology that Harris County is using.

Both men believe vehemently that E911 has met with some unforeseen difficulties as it has been deployed, but those difficulties aren't showstoppers. The incident in which four teenagers

drowning off the coast of Long Island after their wireless call was juggled by responders has become a rallying cry for more oversight and management of installation of the systems—which, according to the Amarosa and Melcher—could help.



E911: MAKING THE CALL

As a result of the Long Island incident and other high-profile cases, E911 initiatives have gotten some high-profile supporters. Sen. Hillary Clinton, D-N.Y., also testified at the same hearing as Amarosa and Melcher. The same week she helped form the Con-

gressional Wireless Caucus aimed at helping shepherd E911 issues through Congress.

Technologically speaking, however, progress is being made, as some issues become clearer. For instance, Cingular Wireless recently signed a multi-year contract with TruePosition to provide location-based E911 technology for its GSM networks.

The contract comes after Cingular completed testing of TruePosition's U-TDOA location technology in Wilmington, Del., according to Cingular. In that test, 67 percent of calls were located within 47.1 meters and 95 percent of calls were located to within 112.2 meters, according to the company.

Last fall, Cingular said it would begin testing TruePosition's TDOA caller-location system after struggling with, and now, apparently abandoning, enhanced observed time difference of arrival (E-OTD) technology from another company. AT&T Wireless has also said it will use TDOA technology. ■

Telespree, VeriSign Automate Activation

BY SUE MAREK

As carriers struggle to keep their costs in check, many are looking at ways to reduce the time and expense it takes to activate subscribers. Lengthy activation processes have long been an issue in the industry. But recently they came under fire in the fourth quarter of last year when retailer RadioShack Corporation told analysts that the growth rates for Sprint—which typically gets about 25 percent of its gross subscriber additions through RadioShack—were slowed by a customer activation process that took longer than expected.

Catering to carriers trying to reduce their activation time and cost is San Francisco-based Telespree Communications, which last fall introduced an activation software for CDMA2000 1X networks. Today Telespree is taking its activation solution a step further by teaming with VeriSign to unveil Self-Service Set-Up, an activation system that lets customers use their newly purchased de-

vice to pick their rate plan and set up their account.

Targeted at the retail sales channel, Self-Service Set-Up can guide consumers through the activation process, freeing up the call center personnel to focus on helping customers with billing and service issues. "This prod-

less device at any retail location, they simply turn on the phone and the device will connect automatically to the wireless network via standard SS7 or IP messaging. After being prompted by text or voice commands, the customer uses numeric-only key commands to establish an identity pro-

"By lowering the cost of acquisition, carriers can spread the brand to new places and drive customers to a larger number of retail channels."

uct is intended to revolutionize how wireless carriers do wireless acquisition," says Gail Redmond, vice president of marketing at Telespree. "This is an automated experience driven by the network but experienced through the user handset."

After a consumer purchases a wire-

less device at any retail location, they simply turn on the phone and the device will connect automatically to the wireless network via standard SS7 or IP messaging. After being prompted by text or voice commands, the customer uses numeric-only key commands to establish an identity pro-

file. The Self-Service Set-Up then validates identity, completes credit and demographic scoring and offers rate plan options. According to Redmond, the entire process takes just minutes.

Redmond believes this activation process not only will help reduce the time and cost of activations, but also will also make it easier for carriers to penetrate new retail venues for their phones and service. "Retailers are looking for a better experience inside the store, customers are looking for better service, and carriers are looking for a better process," Redmond says. "By lowering the cost of acquisition, carriers can spread the brand to new places and drive customers to a larger number of retail channels."

And Telespree believes it can actually quantify the savings most carriers will experience by going the self-service route. The company says by minimizing the reliance on customer service representatives, carriers can lower the cost per gross add by 10 percent, or a savings of \$30 to \$40 per subscriber.

But do customers like a device-driven activation process? According to a Forrester Research study commissioned by VeriSign, more than 60 percent of customers surveyed said they would be likely to purchase a new wireless service via an automated self-service system using a newly purchased device. ■



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Disney Embraces Wireless, Looks For More Alliances

BY SUE MAREK

Mickey, Goofy and Donald Duck may draw a much younger audience than the typical cellular phone user, but that's not stopping Walt Disney Internet Group from joining ranks of content companies looking to extend their brand and content to mobile devices.

The company made an early debut in the mobile content world in 1999 through its ABCNEWS and ESPN brands. In 2000 it launched its Disney-i service with Japanese carrier DoCoMo, bringing Disney-branded graphics, ringtones and games to mobile devices.

Today Disney has content distribution agreements with four of the top U.S. carriers—AT&T Wireless, Nextel Communications, Sprint PCS and Verizon Wireless—as well as deals with device makers such as Palm. But this is only the tip of iceberg. According to Steve Wadsworth, president of Walt Disney Internet Group, the company is aggressively working to leverage more of its content and is

hoping carriers worldwide will emulate Japan's model—used by DoCoMo, J-Phone and KDDI—which Wadsworth says has been very successful for Disney.

"This is a model where they have a robust data network, high quality consistent handsets with very advanced

"We think this is a major opportunity and we are putting a lot of energy into it."

feature sets and display capabilities, a completely integrated billing system so you have one touch to purchase, and great content," Wadsworth says. "In my opinion these are four things that you need and it is something that DoCoMo had when it launched i-mode three years ago."

And when it comes to making money, Wadsworth praises DoCoMo's revenue-sharing model, which the majority of operators are using to divvy up the revenue that mobile content generates. However, he adds revenue sharing is sometimes misunderstood. Though content providers typically get by far the largest percentage of the revenue from the purchase of a ringtone, screen saver or other type of content, he says the carriers still get 100 percent of the data minutes used to download the content. "The model in Japan is that a significant portion of the revenue goes to the content provider and a smaller portion to the carrier, but the carrier keeps 100 percent of the platform fees," Wadsworth says. "That's the model that works for us."

And like other content companies, Disney is looking not only to leverage its existing content but also to provide new types of content specifically designed for the mobile device. Wadsworth says many of its early content deals through ABC and ESPN typically used existing content but the company does believe this is a different medium that requires a whole new approach. "This is a new medium with new capabilities and a new user inter-



Wadsworth

action that can only truly be realized by creating new content," Wadsworth says. "We have been doing that as well as looking at this as a way to extend our existing businesses ... we're pushing down both paths."

Wadsworth also says that Disney's robust mix of content makes it easy for U.S. carriers to differentiate their offerings from competitors by using specific types of content to target certain audiences. "There is a range of ways we can use our multiple brands to provide the carrier with a unique proposition," Wadsworth says.

For example, Wadsworth says one carrier has done research and found that many parents are handing their phones to their children to play games. And while the parents are still purchasing the phones, the phone is being used as an entertainment device for their children, making it appear there is a larger audience for youth-oriented content than previously thought. This phenomenon is a perfect fit for Disney because much of its content is targeted to children who as of yet haven't been part of the phone purchase mix.

While content is becoming a greater part of the wireless experience, Wadsworth believes that this is still a market in its infancy, but with great potential. However, he says there are still lots of "execution issues" involving the wireless networks, devices and business models that must be resolved before mobile entertainment becomes a burgeoning business. Nevertheless, he is enthusiastic: "We think this is a major opportunity and we are putting a lot of energy into it." ■

WDIG Wireless Content Distribution

(As of October 2002)

	ABCNEWS.com	Disney.com	ESPN.com	EXPN	FamilyFun.com	Movies.com	SoapNet
AT&T Wireless	X		X				
AT&T Mode	X	X	X		X	X	
Sprint PCS Wireless Web	X		X			X	
Sprint PCS Ringers and More		X	X				
Sprint PCS Vision		X	X	X			
Verizon Wireless Mobile	X		X				
Verizon SMS							X
Verizon Brew							
Palm VII	X		X				
Nextel	X		X				

Source: Walt Disney Internet Group

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Earthlink Sees Data Basics As Wireless Strength

BY BILL MENEZES

Even as it makes greater inroads into wireless services, Internet service provider Earthlink still wants to focus on the applications that are its strengths: e-mail and digital content.

Earthlink at this week's CTIA Wireless 2003 convention will talk about enhancements to its existing wireless lineup—which now includes high-speed mobile connectivity via its relationship with a national CDMA2000 1X network—that focus generally on exporting the desktop experience to handheld devices such as PDAs.

Brent Cobb, president of the ISP's Earthlink Everywhere operation, notes that Earthlink's early wireless efforts focused on data-centric products such as Research In Motion and Motorola two-way messaging devices. Now, the company wants to provide a single user experience across laptops and on handhelds regardless if they're operating on the Palm OS, PocketPC or RIM platforms.

"We add a lot of value not only as an enabler of Internet information, but also we can marry the PC and wireless worlds with products like those," Cole says.



For content-oriented wireless devices such as wireless phones with integrated cameras, Earthlink sees its greatest strength in marketing the ways in which its network and back-office capabilities enhance the use of such products. A digital camera-phone user might have an Earthlink account not only for sending photos but also for storing them on the ISP's servers.

"We're going to enable the application on the device, enable the transport

and then have the storage on the back end consistent with the existing storage the user has with their existing account," Cobb says.

Content such as the more sophisticated entertainment applications now being pushed by wireless carriers is a secondary concern in Earthlink's strat-

egy. Its users primarily want to get their Earthlink e-mail pushed out to their mobile devices, while still using Earthlink network features such as spam and pop-up ad blocking, mail filtering and security measures.

Cobb says later this year Earthlink will add instant messaging and e-mail alerts to the wireless service lineup.

At CTIA's Wireless 2003, Earthlink will highlight applications that further extend its core wireless-oriented offerings. One app is its Earthlink Wireless 2.0 for PocketPC software, an enhanced version of its access software that will enable a user to swap their 1X wireless network card between a PocketPC handheld and a laptop computer without reconfiguring.

Earthlink also will release a version of its e-mail client for Palm OS devices, aimed at wireless versions such as the new Tungsten W or the Handspring Treo, Kyocera 7135 and various Samsung Palm OS phone-PDAs.

Another product being unveiled at Wireless 2003 is the Earthlink-branded GoWeb for RIM's BlackBerry, created in conjunction with applications developer GoAmerica. ■

BITS

■ **OSG Billing Services** says it has reached an agreement to provide invoice presentment and distribution services to **NPI Wireless**, a wireless service provider in Michigan. OSG Billing Services is providing NPI Wireless with new capabilities for invoice design and composition, such as the use of spot color to highlight important information along with increased messaging resources.

■ **Business outsourcing solutions provider PFSweb** announced it is using **Siemens Dematic's PickDirector RF Cart System** to support picking operations in its Memphis, Tenn., super-hub distribution center. PFSweb is exhibiting

at CTIA Wireless 2003 at Booth 2018.

■ **Multimodal platforms provider Kirusa** and products supplier **NMS Communications** announced availability of an end-to-end multimodal solution featuring Kirusa's Multimodal Platform integrated with NMS Communications' mobile services delivery platform, **NMS HearSay**, enabling new multimodal mobile applications and services.

Kirusa says its multimodal platform enables wireless phone and PDA users to request or add information by speaking a command or by using visual inputs such as typing or tapping with a stylus.

Relics Commemorate 20 Years Of Cellular

CTIA is offering showgoers at Wireless 2003 a chance to travel back in time—not in a cutting-edge wireless time machine, but at its mini-museum of relics from the first 20 years of the cellular business.

The commemorative display at Booth 659 of the Ernest A. Morial Convention Center features more than 40 artifacts that celebrate the creation of the modern wireless communications business.

Not all the pieces are from the era that began chronologically when Marty Cooper—now chairman and CEO of Arraycomm—made the first phone call on a modern cellular network 20 years ago in Chicago. The exhibit includes, for example, the first portable cellular phone that Cooper used to make the first portable call from a New York sidewalk in 1973.

Another relic is a World War I-era air-to-ground radiotelephone set, developed by Bell Labs for the U.S. Army Signal Corps. There also is the prototype DynaTac portable radiotelephone, provided by its creator Motorola, that dates to 1973.

Items from the more modern era include the P9000 from NEC, noted as the first NEC cellular handset in the U.S. market; the Audiovox MVX700 mini-phone of 1992, which weighed 6.2 ounces; and a 1991-era Mobitex terminal, provided by Ericsson.

—By Wireless Week Staff

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Fifth Year Most Challenging For Comsearch

BY MARK ROCKWELL

The wireless spectrum environment on the show floor at CTIA Wireless 2003 is a microcosm of the future of wireless in general, with a myriad of astounding applications vying for a narrow slice of available spectrum—even NextWave Telecom plays a background role.

Comsearch officials say getting enough spectrum to handle 32 requests totaling 72 megahertz of spectrum was more than challenging. The company, which is charged by CTIA to obtain, coordinate and manage spectrum at the show, had been given 23 megahertz of spectrum from wireless incumbents in New Orleans to handle the show, says Chris Hardy, vice president spectrum management solutions at Comsearch.

We have 13 vendors across the show floor that will be heavy users of spectrum.

"We got nine CDMA, eight UMPDS and 15 GSM requests for spectrum" for the show, Hardy says. The company also had to deal with a variety of exhibitors showing off the latest in the hot area of Wi-Fi and unlicensed devices and services. The resulting jumble of needs and spectrum consumption was a challenge to manage. Adding to the challenge was the lack of the spare 30 megahertz of fallow NextWave spectrum that was available at the last CTIA show in Atlanta, he says. That spectrum is owned and used by AT&T Wireless in New Orleans.

As a result, Comsearch's fifth year of managing spectrum at CTIA's show is the most complicated. The company has had to improvise, cajole and plan ahead to make sure the vast appetite

for spectrum at CTIA doesn't go hungry. "We've taken great pains to avoid interference between demonstrators and operators," he says.

That means, according to Hardy, implementing spectrum sharing, spectrum reuse, power limitations and directional antennas—not to mention a healthy dose of cooperation between spectrum users. "We've added guard bands between allocations and avoided using preferred roaming channels," he says.

"We have 13 vendors across the show floor" that will be heavy users of spectrum. "We've used distance" to minimize interference," he says. In some cases, some vendors have had to purchase specific antenna types just for the show.

Comsearch officials scheduled a full scale dress rehearsal on Sunday, when it planned to have all exhibitors turn up their applications at the same time for three hours. The trial run was designed to flush out any problems. During the show, Comsearch again will have on-site engineers who roam the show floor to monitor and take care of interference problems.



Comsearch was aware months ago that this year's show would be a complicated one, as it began polling exhibitors about their potential spectrum use at the show and seeing that spec-

trum was at a premium in the Crescent City. The company implemented a stringent registration process and coordination process, according to Laura Fontaine, Comsearch director of spectrum management solutions. "We started three months before the show contacting carriers in the area [in New Orleans] to get the spectrum," she says. "Two months ago, we got requests from exhibitors. We brought in RF engineers and started conference calls" among exhibitors and coordinators. "All vendors had to sign off on restrictions" that are imposed on spectrum use, she says, to avoid interference among exhibitors.

Other restrictions have been placed on burgeoning unlicensed devices, although management of their supporting spectrum—2.4 GHz and 5.8

GHz—is largely up them, but unlicensed devices being used on the show floor are supposed to be registered with CTIA, so Comsearch knows where they are, Hardy says. ■

Progress Telecom Marks Progress In Attachments

Progress Telecom announced it has completed its 300th wireless attachment of a cellular/PCS antenna array to a utility structure—in this case, for Verizon Wireless. Antenna attachments provide services for major wireless carriers, enabling them to activate new cell sites on their networks and enhance their wireless coverage.

The 300th attachment was placed on a Progress Energy utility structure in St. Petersburg, FL. Progress Telecom's attachments are in some 90 counties in Florida and the Carolinas, on structures owned by Progress Telecom and its sister utilities, Progress Energy Florida and Progress Energy Carolinas. All three companies are subsidiaries of Raleigh-based Progress Energy.

In addition to its core broadband services business, Progress Telecom offers wireless carriers collocation on company infrastructure. Its tower attachment activity has been among the most aggressive in the utility-owned telecom industry. "We are where wireless carriers want to be," says George Townsend, general manager of Progress Telecom's wireless division. "Utilizing existing utility structures for antenna attachments and collocating carriers make good economic and environmental sense."

Progress Telecom offers wireless carriers full infrastructure services, ranging from site identification to architecture, engineering, permitting and construction.

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Wi-Fi Complements, Competes With Fixed

BY SUE MAREK

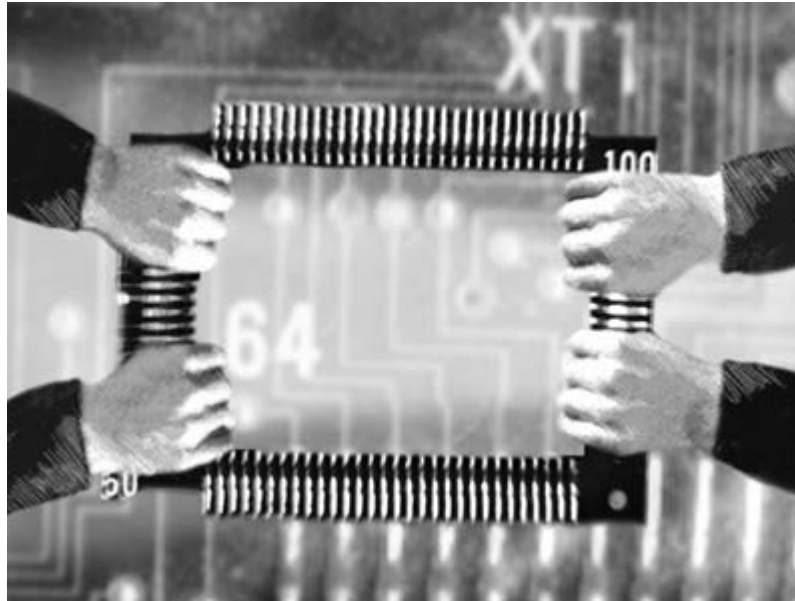
The boom in 802.11b technology has created both an opportunity and a disadvantage for fixed wireless broadband equipment providers. While some broadband wireless companies say Wi-Fi is a complementary technology that can be used to extend the fixed wireless footprint to buildings or campuses, others say the growth in inexpensive Wi-Fi equipment is making some potential users consider Wi-Fi as an alternative to fixed wireless gear.

The end result: Whether Wi-Fi or fixed, it usually comes down to the type of service the customer requires. For example, 5G Wireless has developed a niche broadband service using traditional 802.11b technology in conjunction with direct sequence spread spectrum. The company has about three of these hybrid Wi-Fi networks around the country. According to 5G Wireless President and CEO Jerry Dix, the company can provide broadband speeds of about 512 kilobits per second to customers using collocated radios, which are capable of supporting 250 clients for a total of 750 clients per facility.

"Wi-Fi is cheaper and there is some segment of the market that will buy strictly on price."

This type of Wi-Fi technology usage is becoming more prevalent and for fixed wireless providers such as Wave Wireless, which provides fixed wireless connectivity in the unlicensed spectrum, it can be a business threat. "Wi-Fi is cheaper and there is some segment of the market that will buy strictly on price," says Patrick Pacifico, Wave Wireless' vice president of marketing. For example, municipalities such as the city of Garden Grove, Calif., recently decided to use 5G Wireless and its Wi-Fi technology to provide broadband connectivity to the police department substations.

However, Pacifico says most customers need better performance and security than the typical Wi-Fi network can



provide. Preplanned communities and other real estate developments are prime candidates for Wave Wireless' Speedlan products. "We've seen a growing interest from large planned communities in which the real estate developer wants to be a broadband service provider for the community and is trying to lock up the technology and product before breaking ground on the project."

In addition, Pacifico says many ISPs that initially used Wi-Fi to extend their broadband footprint are now contacting companies such as Wave because they have found they need a technology that has a greater reach than Wi-Fi. "We get a lot of inquiries from ISPs that initially deployed Wi-Fi and now need something for a more specific purpose," Pacifico says.

But not all broadband wireless players see Wi-Fi as a competitor. For Navini Networks, which makes a licensed spectrum portable wireless solution, Wi-Fi is a great technology for extending the broadband footprint. "802.11 is a complementary technology," says CEO Alastair Westgarth. "It's a great solution, but at the end of the day in a non-line-of-sight setting, Wi-Fi gives you 300 feet of coverage vs. three miles to 10 miles of coverage" that Navini's equipment can provide, Westgarth says.

cost effective for hot spots" than other backhaul options, Westgarth says.

In fact, Navini is so sold on Wi-Fi technology that the company is working to integrate Wi-Fi into the PCMCIA version of the Navini modem so that customers can eventually move seamlessly between Wi-Fi unlicensed networks and Navini's portable wireless solution.

This type of partnership between Wi-Fi and traditional fixed or portable wireless providers, according to Westgarth, is much more typical than a competitive scenario because the two technologies have much different strengths and while they can be used in similar situations, it isn't always the best

use of the technology. "The way we view the world is that there is no one connection that solves all problems. Navini is an expensive WAN and Wi-Fi is an expensive LAN." **WM**

But Westgarth also believes that fixed wireless technology is a great complement to Wi-Fi when used as a backhaul solution for Wi-Fi hot spot traffic. "The Navini modem is more

BellSouth Releases New NDA Tool

BellSouth says it is now offering BellSouth Enhanced National Directory Assistance to wholesale wireless carrier customers for updated information on driving directions, traffic reports, restaurant reviews, sports scores, weather reports, airport flight delays, movie listings and more.

BellSouth's service offers both local and non-local directory assistance telephone listings that can include name, address, ZIP code as well as telephone numbers. By providing the telephone number, a caller also can obtain a name or an address.

In addition, following their telephone number requests, customers can be automatically connected through the wireless carriers' networks using BellSouth's switch-independent call completion solution. BellSouth says wireless carriers using its Operator Services can brand 100 percent of the calls as their own.

The categories of enhanced information include:

- Turn-by-turn driving directions
- Restaurant reviews for more than 5,600 restaurants in major U.S. metro areas
- Restaurant reservations across the country
- Sport scores for Major League Baseball, National Football League, National Hockey League, National Basketball Association and Division I men's NCAA football and basketball games.
- Traffic reports for major metro areas
- 24-hour and four-day extended weather forecasts for more than 26,000 U.S. cities
- Weather-related flight delays for more than 1,000 of the world's major airports
- Ski reports for approximately 500 resorts worldwide
- Movie listings, ratings, theater locations and show times
- Calendar of local events in major metro areas
- Stock quotes on NYSE, NASDAQ and AMEX
- Business category search of Yellow Pages

NEC Makes Splash With Preloaded GSM Phone

BY SUE MAREK

One from the U.S. wireless device market for the past few years, NEC America Inc. has decided the time is right to reappear. The company's 515 GSM/GPRS phone will be available during the second quarter of this year and will be preloaded with a demo version of game developer Dwango Wireless' Star Division vertical shooting game. Scott Spreen, NEC America vice president of strategic product planning, says the company, which was very successful in the U.S. market years ago with its analog handsets, decided to concentrate on the GSM/GPRS platform. NEC did have some CDMA and TDMA handsets a few years ago, but Spreen says the company "didn't have enough behind the organization to be real successful" in those areas.

NEC is incorporating many state-of-

the-art elements in the 515, which it believes have contributed to the company's success in Japan with its i-mode phones. The device will have a large high-resolution color display, dedicated applications processor, a polyphonic ringer, special vibrating features and simultaneous key-press ability.

These features were particularly appealing to Dwango North America, which like NEC has a lot of experience in the Japanese market. According to Bob Huntley, founder and CEO of Dwango North America, the simultaneous key-press ability is something no other handsets offer and is a feature gamers expect on their devices. "Simultaneous key press is a natural for gamers," Huntley says. Plus, the vibrating features make the gaming experience much more realistic, he says. When something gets blown up, the phone will vibrate. "This is a huge leap. It's an eye

opener for what can be done on a cell phone. With the right form factor, this is remarkably powerful," Huntley says.

The preloaded Dwango game will be offered exclusively to consumers who buy the NEC 515 within the six months after the phone launches in the United States. Players can play the demo and purchase the full version of the game if they choose. Dwango's other games also are available in the United States through AT&T Wireless (subscribers can download games for play on the Motorola T720 for \$2.49 per download), and through carriers using Qualcomm's BREW platform.

Huntley says the preloading of the Dwango game on the NEC phone is a big step for mobile gaming. "Preloading of games is a big deal because it's early in the market and it can be difficult for people to find the games. This gives games a huge exposure to customers."

Meanwhile, NEC America executives say the company has plans for additional handsets for the U.S. market. However, for now

the company does not plan to make U.S. devices using air-interface technologies other than GSM. And in the United States, executives say initially the company will primarily focus on the higher-tier market. "Our strategy is to stay within the higher-tier realm because our phones are so feature rich," says Adrienne Campbell, NEC's marketing communications manager. **W**



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VeriSign Makes New Services Available For Carriers

BY SUE MAREK

Building on its expertise in network functionality and database management, VeriSign has added two new wireless carrier services to its portfolio of products.

To help carriers meet the federally mandated requirements for lawful intercepts, VeriSign has expanded the capabilities of NetDiscovery. This service bureau solution, which was introduced last year to help carriers meet mandates for surveillance of voice calls over voice networks, has been expanded to include intercepts of packet data on GPRS and CDMA 1X wireless networks.

"This helps ease the burden for carriers."

According to VeriSign, carriers using NetDiscovery can minimize the impact of these surveillance requests, which often come from multiple law enforcement agencies, on their business and network infrastructure by allowing VeriSign to handle the admin-

istration, records management and provisioning of such requests. "This service bureau model helps us capitalize on our knowledge of law enforcement agencies and the carriers," says Larry Moores, director of market planning and analysis at VeriSign. "This helps ease the burden for carriers."

Moores says this service bureau model is particularly appealing to small rural operators that may not receive as many of these requests as their counterparts in large cities and therefore don't have the manpower to handle the requests when law enforcement agencies approach them.

And the addition of the data capability allows VeriSign to help carriers with all requests for data intercepts, a phenomenon that is becoming more prevalent as data usage grows. VeriSign says the company is able to access virtually any packet data network using its mediation platform.

Besides the additions to NetDiscovery, VeriSign also announced today that it is making its Wireless Calling Name service available for carriers that want to differentiate their voice service by providing customers with true calling name functionality. Although many carriers market a caller ID service to consumers, that service typical-

ly only provides a caller's name if the name has been programmed into the subscriber's caller directory. The reason true Caller ID service hasn't existed on wireless phones, according to VeriSign, is because wireless and wireline networks use different messaging protocols to make data queries and converting these protocols can be very expensive.

However, VeriSign says it has overcome those challenges and its Wireless Calling Name will allow wireless operators to provide the same caller ID service available on wireline phones. VeriSign's service is compatible with various networks and the CNAM database provides carriers with access to more than 38 million name records and interconnection with all national CNAM databases.

Moores says VeriSign believes this capability could be very lucrative for wireless carriers be-

cause it is already a very popular service. According to Moores, about 40 percent of landline phone users have caller ID service on their home phones.

In addition, carriers that use the service can make money every time another carrier queries their stored data. Moores says that during this type of exchange, VeriSign charges the querying carrier for the information and a portion of that revenue is funneled to the wireless operator that provided the data. **W**

About VeriSign

Ticker: VRSN/Nasdaq

Headquarters: Mountain View, Calif.

Employees: About 3,000 worldwide

Year founded: 1995

Initial public offering: January 1998

Services: VeriSign processes credit card information for online transactions and maintains a database of Internet addresses with dot-com and dot-net names. Last year, VeriSign acquired wireless billing and customer care solutions provider H.O. Systems and in late 2001 acquired network and signaling company Illuminet. The company's core offerings are in telecommunications, security and registry services.

Source: Company information

Four CDMA Systems Products From Samsung

BY BRAD SMITH

Samsung Telecommunications America is showing off four new wireless systems products at CTIA Wireless 2003, all designed to drive value-added services and bring new revenue streams for CDMA carriers, according to Neal Smith, senior director of wireless systems.

The systems include the SCBS-500 Base Transceiver Station, SCBS-400S5 Pico Base Transceiver Station, InfoMobile 3GS and InfoMobile @Cell. All four leverage Samsung's CDMA experience in South Korea, where it helped launch the first CDMA2000 1X network in 2000.

In the United States, Samsung pro-

vided the BTS and BSCs for Sprint PCS' 1X launch last year. It also provided technology for the 1X EV-DO networks launched last year in South Korea and Japan.

Smith said the four products for CDMA carriers in the Americas can provide multimedia messaging services, video on demand, video conferencing and MP3 music downloads.

"Wireless operators need to have the confidence that the new equipment will overlay with their current infrastructure and immediately produce measurable results," he said. "That is exactly what Samsung's products offer."

Samsung's SCBS-500 BTS supports

up to eight carriers and more than 3,400 channel elements in a single rack. An optional expansion rack in-

Samsung's new products are designed to create new revenue streams.

creases capacity to 15 carriers and more than 6,900 channel elements.

The SCBS-400S5 pico BTS is de-

signed specifically for highway and in-building applications, supporting more than 320 channel elements.

InfoMobile 3GS integrates wired and wireless technologies so subscribers can receive calls from any location as well as access high-speed data services. Incoming calls are automatically routed from a wireline phone to a wireless phone.

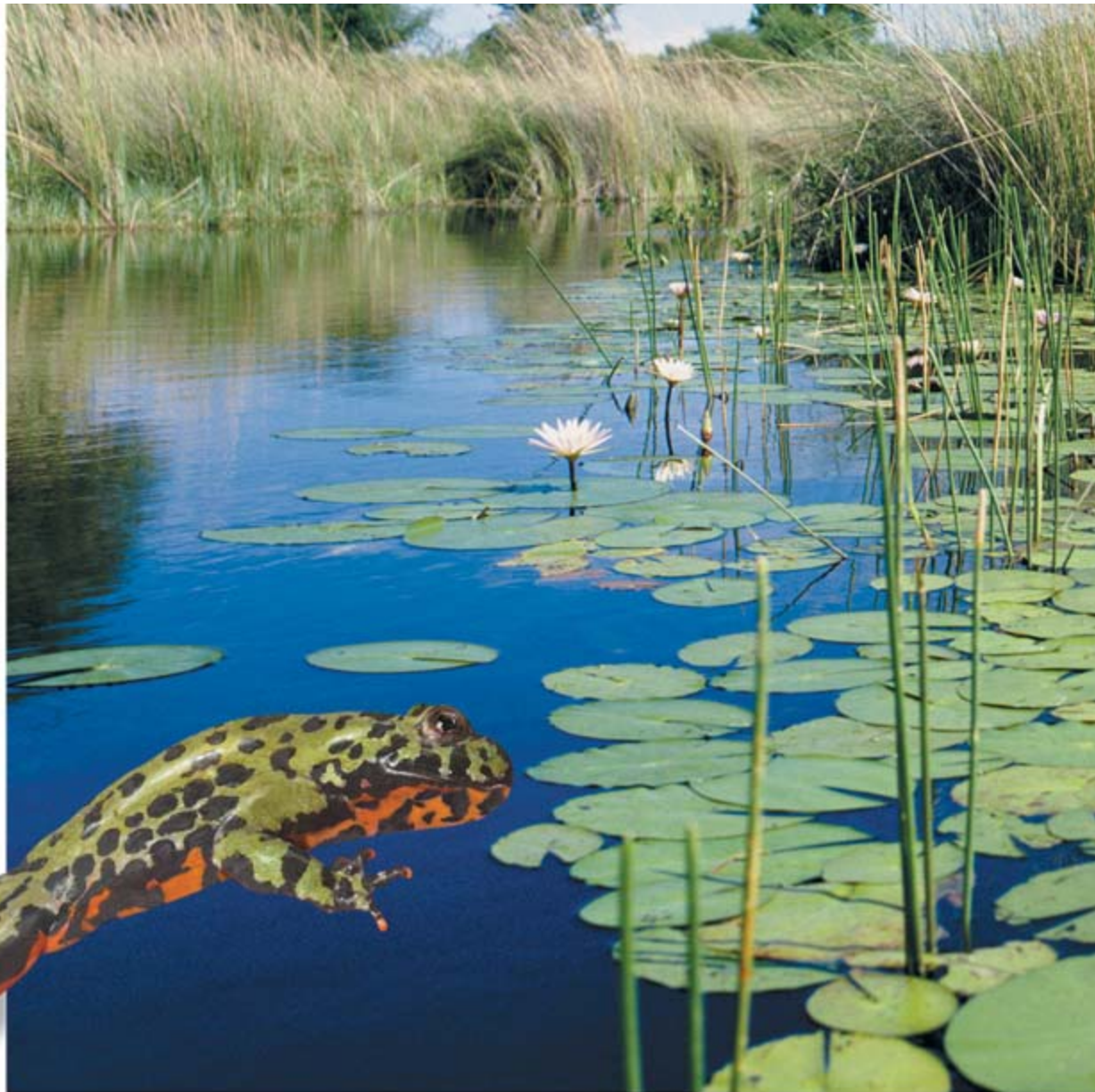
InfoMobile @Cell provides secure high-speed wireless data for in-building, campus or hot spot areas using existing infrastructure.

With these new products, Smith said, Samsung is "poised to step into the super-leader category." He said Samsung Electronics had \$31.2 billion in total sales in 2002, giving it the economic backbone to continue its global expansion. **W**



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Ericsson Sees Network Outsourcing Gains

BY BILL MENEZES

Riding the crest of a major marketing campaign pegged to its history of technology advances, Ericsson is hoping this week also to tout some wins in its newly strategic network services business.

The Swedish wireless network equipment giant in conjunction with CTIA Wireless 2003 is launching a new campaign with the theme, "Being First Means Knowing What's Next." To Ericsson, what's next are non-traditional business segments that it hopes will replace revenue which is disappearing from its flagship infrastructure segment.

Angel Ruiz, president and CEO of Ericsson Inc. North America, said in an interview with the *Wireless Week Show Daily* that the road ahead could include a major outsourced network operating contract with significant U.S. wireless carriers.

Consolidation among the major service providers also could create a huge opportunity for Ericsson's network services business, Ruiz says: The management by a single entity of a national network shared by what for-

merly were two or more competing service providers.

The ambitious vision could make sense if operators—say, multiple North American GSM carriers—that want to combine see outsourcing their network operations as eliminating a major logistical hindrance created by a merger.

"This is something we know works, we know can be done."

Network vendors such as Ericsson already essentially run networks that they build for service providers, right up until the in-service date, Ruiz says.

"If the right player with the right credibility and know-how comes along, this type of consolidation can happen through one player consolidating, managing, operating, maintaining all the GSM networks in the United States," Ruiz contends. "This is something we know works, we

know can be done, and helps operators with their operating expenses."

Carriers generally are very territorial about their network operations, but financial market pressure on wireless service providers to boost profit margins means they likely will be looking at strategies they may have shied away from in the past. Operators that farm out the running of their wireless networks—whether in individual markets and regions or nationwide—retain their own branding, marketing and subscriber base.

"Some operators believe running a network is core to their business, they don't want to give that up," Ruiz admits. "But others are more open to outsourcing and are moving quickly in that direction."

While declining to name the company's prospective first client for an outsourced North American network, Ruiz notes it likely will be a national carrier looking initially to farm out a local or regional cellular network.

"It's like what EDS and IBM have done over the past 10 years, once you sign up the first guys and prove you can do it the others fall in line and you

get economies of scale that make it profitable for both companies to get it up and running," Ruiz says.

Wide area network services won't be all Ericsson's talking about this week. The company recently unveiled a deal to deploy 5,000 public wireless LAN hot spots for U.K.-based Inspired Broadcast Networks, which is owned by that country's biggest operator of coin-operated game terminals.

Ericsson is working with Intel and British Telecom to create a new hot spot network dubbed "The Cloud," which plans to have Wi-Fi in some 30,000 locations over the next three years.

Ericsson will install and equip the gaming terminals with Wi-Fi capabilities and link them to the Internet via DSL.

And Ericsson also will be one of the mob of companies detailing their plans for push-to-talk capabilities. Ruiz notes that Ericsson—which has been working on cellular network-based PTT for years and is a major supplier to PTT leader Nextel Communications—was part of the vendor group pushing for PTT standardization. ■

Wireless Wallet Drives ARPU

BY SUE MAREK

Despite skeptics, mobile commerce is alive and well in some pockets of the wireless industry. And early results indicate that it can provide significant revenue opportunities for wireless carriers.

By using Boston Communications Group Inc.'s Wireless Wallet m-commerce platform in conjunction with its i-Wireless prepaid offering for teens, Cincinnati Bell Wireless has found that m-commerce users averaged 84 percent higher average revenue per user than voice-only users.

According to Tom Erskine, BCGI's vice president of product development and marketing, this statistic and other data was gathered by BCGI, which compared i-Wireless customer usage before the Wireless Wallet implementation with current usage. The compa-

ny found that once subscribers began using the phone in what Erskine calls a "multimodal" pattern—meaning they were using the device for multiple uses such as voice and m-commerce—their usage rose dramatically.

But one of the biggest surprises of BCGI's research was casual voice users often became heavy m-commerce users when they were introduced to the Wireless Wallet. "Subscribers that would be classified as light users of wireless in general, when using m-commerce showed these giant ARPU gains," Erskine says. "This shows that as you increase the modes of use, the usage pattern does change."

In fact, Erskine says subscribers with the lowest initial usage experienced usage increases of between 50 percent to 200 percent. This increased usage

subsequently raised ARPU for these subscriber segments between 32 percent and 107 percent, Erskine says.

Currently, most i-Wireless subscribers use the m-commerce application to purchase low-priced items

subscribers. "Cincinnati Bell is still operating today in a 2G TDMA environment so it is still limited in terms of the commerce they can deploy," Erskine says.

However, Erskine believes the potential for more m-commerce type applications is great, especially as more applications become available. And while other carriers are using BCGI's Wireless Wallet technology, Erskine says Cincinnati Bell's experience has been especially promising because the company has always been on the cutting edge with its targeting of the teen market. "The nice thing is that this is already a service targeted at the sweet spot for mobile commerce."

But don't expect Cincinnati Bell to be the only carrier with this type of m-commerce offering. Erskine says a number of carriers have implemented the Wireless Wallet and may be seeing similar results later this year. ■

"The nice thing is that this is already a service targeted at the sweet spot for mobile commerce."

such as graphics and ringtones. Cincinnati Bell's wireless network is a TDMA network, which means that more advanced applications and handsets are unavailable to existing

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Company	Booth #	Company	Booth #	Company	Booth #	Company	Booth #
20 Years of Wireless		Association of Wireless Professionals.....	935	CellXion, Inc.....	6331	DatumCom.....	5477
Commemorative Display.....	659	Assurant Group.....	852	CelPlan Technologies.....	1735	Dealerscope.....	6023
3D Cellular Inc.....	2576	Astra Microwave Products.....	733	Central Tower, a Dielectric Company.....	2210	Decibel Products an Allen	
4thpass.....	2563-2B	Astron Wireless Technologies.....	630	Centurion Wireless Technologies,		Telecom Company.....	5145
724 Solutions, Inc.....	5459	Asurion.....	3057	Inc.....	4847	Dekolink.....	4314
802.11 Planet - Jupitermedia.....	2275	AT&T Wireless Services.....	7321	Ceragon Networks, Inc.....	2230	Delta Products Corp. -	
AAT Communications.....	2374	ATI Technologies Inc.....	445-P	Certicom Corporation.....	4577	Telecom Power.....	6845
AC Data Systems, Inc.....	1547	Audio Codes.....	2367	Chem Spray South.....	2977	Dempa Publications, Inc.....	2115
Accenture/Toshiba.....	4767	Audiovox Communications		Chin Nan Precision Electronics		Department of Defense.....	3637
ACE*COMM Corporation.....	6314	Corporation.....	4045	Co., Ltd.....	4711	Dice Wireless.....	1922
Actix.....	2121	austriamicrosystems USA, Inc.....	3923	CIBERNET.....	5923	Digit Wireless.....	4078
Adtran.....	6558	Autodesk Location Services.....	3560	Cigma Technologies, Inc.....	2572	Digital Antenna.....	1360
Advanced Imaging Systems.....	4036	Avaya, Inc.....	4116	Citicell Corp.....	4824	Digital Bridges Ltd.....	445-B
Advanced RF Technologies.....	3813	Avista Labs.....	2175	Clarity.....	4937	Digital Receiver Technology.....	6359
Advantec.....	3068	Avnet RF & Microwave.....	748	Clip Company, The.....	1431	Digital Teleport.....	2817
Advantest America		AxiomGPS.....	6531-1	Clough, Harbour and Associates LLP.....	2113	Dilithium Networks.....	2135
Measuring Solutions.....	1037	Bandai America Inc.....	2267	Club iDen for Developers.....	2563-2D	DL Telecom Co. Ltd.....	6345-7
AeroVoice.....	5471	Baran Telecom.....	5037	CNCG.....	3674	Dominion Telecom.....	2229
AFL Telecommunications.....	7322	Bard Manufacturing Company.....	4027	The Color Works, Inc.....	3775	Draka NK Cables.....	745
Agilent Technologies.....	2329	BCA International Corp.....	3979	ColorCards.....	2373	DST Output.....	6007
Aircept.com.....	3073	Bean Rocket Mobile.....	2965	COMARCH.....	2020	Dupont Building.....	4038
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Airvana.....	2865	Belkin Components.....	2413	Combined Technologies, Inc.....	2131	East Penn Manufacturing.....	636
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Alcatel.....	4436	Best Case Cellular Accessories.....	6325	CommScope.....	7135	E-Comeleon.....	3623
AleEv, Inc.....	3567	BigDigit, Inc.....	1056	CommSoft.....	2524	Ekahau.....	3811
All Pro Distributing, Inc.....	3736	Bitstream Inc.....	2221	CommWorks Corporation.....	5565	Elcoteq, Inc.....	3711
Allen Telecom Inc.....	5145	Blackstone.....	1727	ComOpt AB.....	1251	Elektrobit Ltd.....	3711
Allgon.....	2835	Bluebell International Ltd.....	3617	Comsearch an Allen Telecom		Emblaze Systems.....	4967
Allis Electric Co., Ltd.....	6319	BMWFilms.....	1056	Company.....	5145	EMI EYAL MAG.....	1157
Alpha Technologies Inc.....	5031	Boston Communications Group.....	1933	Comsys Com. & Signal Processing		Empower Interactive Group, Ltd.....	4119
Aluma-Form.....	4229	Bridgewater Systems.....	3574	Ltd.....	6149	EMS Wireless.....	3319
America Online, Inc.....	4653	Brightpoint.....	4031	Comverse.....	2245	EnerSys, Inc.....	1635
American Power Conversion.....	2613	BrightStar.....	4645	Continuous Computing.....	4936	Enviro Buildings.....	2116
American Roamer.....	2236	BSQUARE.....	4967	Convergencialatina.....	952	EPSON Electronics America.....	4612
American TCB.....	828	BUCA, Inc.....	3931	Convergys.....	2637	Ericsson.....	3744
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Anaren Microwave, Inc.....	6053	California Eastern Laboratories.....	4553	Crown Castle International.....	4213	ESRI.....	2051
Anchor Graphics Marketing, Inc.....	5557	Callplay.....	445-M	CSG Systems.....	2521	Etenna Corporation.....	3173
Andrew Corporation.....	3131	Card Guard AG.....	1163	CSI Shelter Technologies.....	1048	Etron Technology, Inc.....	4648
Anritsu Company.....	5451	CardLogix.....	3734	CSI Wireless, Inc.....	5575	ETS - Lindgren.....	7045
Antel International.....	937	Cardo Systems Inc.....	1463	CTIA Certification.....	4022	Express Products.....	4676
AnyData Corporation.....	2467	Carrier Access.....	5465	CTIA's World of Wireless		Extrusion Technology, Inc.....	1562
APIS Training Inc.....	2522	Casabyte.....	3072	Communications.....	4022	Fashion Electronics.....	6124
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Aprel Laboratories.....	2223	Celletra Ltd.....	3076	Cushcraft Corp.....	947	High Tech meets High Fashion.....	459
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Arjay Telecommunications, Inc.....	2527	Cellular Art.....	1532	Dale Communications.....	4216	Commission.....	6113
Art Advanced Recognition		Cellular Specialties, Inc. (CSI).....	4018	Danger, Inc.....	951	Fellowes, Inc.....	2213
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Artex Creative International.....	649	& Internet Assoc.....	4022	DAPA.....	1537		
Ascom Energy Systems.....	1231	Cellular3G Inc.....	4613	Data911/Sunview.....	2159		

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Fibergrate Composite Structures	6315	iDen Business Solutions	2563-1B	Lawrence Behr Associates, Inc.	3969	Motorola-Semiconductor	
Fibrebond Corporation	2445	iDen Developer Program	2563-1C	LCC International, Inc.	3037	Product Sector (SPS)	1555
Field Force Automation Magazine	1566	iDen Games & Entertainment	2563-1D	Leader Wireless	1664	M-Qube	737
Filtel Microwave, Inc.	1571	iDen GPS Solutions	2563-1A	Lemco Tool Corp.	6560	MSN Mobile	4967
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Formula Telecom Solutions	7420	Infinite Ventures, Inc.	4967	LightPointe	2563-2A	Multi-Tech Systems, Inc.	2366
FORSK	6516	Info Directions, Inc.	6951	LocatioNet, Inc.	2272	Multiwire & Image	6531-4
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FrogPad Inc.	1056	Informa Telecoms Group	2075	Logotec Engineering	4967	/n software inc.	4967
Fulcrum Technologies, LLC	5932	InfoSonics	4014	Logus Microwave	539	N.E.M. Electronics Corp.	3633
Fun Friends	537	Institute for International Research	3578	Lorch Microwave	2250	NARDA	2014
Funk Software	1619	Inswitch Solutions Inc.	2369	Lucent Technologies	2645	NARDA, an L-3 Com. Co.	2237
FutureDial, Inc.	5551	Intec Telecom Systems	6851	Lynn Products, Inc.	2254	National Association of	
Futurewei Technologies	1715	Integrated Telecom Solutions	6821	Lynx Power Systems	2110	Tower Erectors	4030
FWT, Inc.	3965	Intel Corp.	3866	M.W. Samara, Inc.	2819	National Electronics, Inc.	1549
G.M. Selby & Associates, Inc.	4646	Intel Corp.	4959	M/A-COM	2511	National Semiconductor	4619
Galtronics LTD.	2165	IntelliNet Technologies, Inc.	4529	M2Global Technology Ltd.	3967	National Technologies Corp.	5660
GC Towers, LLC.	1146	Intellisoft	736	MacroLogic, Inc.	6513	NavCom Technology	1467
GDE Wireless	6248	Intersect	2111	MACTEC Engineering and		Navigation Technologies	6519
GEMPLUS	3544	Intertek Testing Services		Consulting, Inc.	3156	Nearfield Systems, Inc.	3911
Generac Power Systems, Inc.	6245	ETL SEMKO	4650	Magnetek Telecom Power Group	3675	NEC America, Inc. - RCSD	4111
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GERS Retail Systems	2421	Intrado, Inc.	4430	MapInfo Corp.	5913	NetTest	837
Giant Global	5756	ip.access Ltd.	3635	Marconi Network Components	1457	Nexstar	2969
Giesecke & Devrient	1331	IPWireless	2917	Marconi Wireless	6137	Nexstar	5474
GiftCertificates.com	2274	iQmetrix Software Development		Marvair	1646	Nextek, Inc.	2425
Giyitech Company Limited	4828	Corp	6313	Maryland Dept. of Bus. &		nFini Systems, LLC	4122
GL Communications, Inc.	1046	iRis Networks	3639	Economic Dev.	1255	NINJA Mobile, Inc.	445-I
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Global Locate	6217	ITF Co. Ltd.	6345-1	Materna	7320	Nortel Networks	3325
GNB Industrial Power	6749	ITS America	5553	Maxim Industries USA	2276	Northern Technologies, Inc.	2218
GNP Computers	6829	Jabra Corporation	4123	MCE Technologies	4521	NTT Do Co Mo	2251
Grayson Wireless an		Jae In Company	3575	McGregor Bay Communications	838	Numerex Technologies	6415
Allen Telecom Company	5145	JAMDAT Mobile Inc.	4967	Megahousings	6122	Oberthur Card Systems	3067
Handheld Media Group	5476	Jataayu Software (P) Ltd.	954	Merry Electronics (USA) Co. Ltd.	1451	Octagon Communications	6459
Hang Gear	3479	Jeil Enterprise	6345-5	MET Laboratories	4114	Oldcastle	4413
Hannetware	6531-8	JFW Industries, Inc.	637	Metallic Power	1144	Omnivision	3160
Harger Lightning Protection	832	K & L Microwave, Inc.	3167	Metasolv Software	6755	On The Go, Inc.	1622
Harris Corporation	7421	Kathrein Inc., Scala Division	1437	Metro One Telecommunications, Inc.	5345	Opal Manufacturing Ltd.	753
Hewlett-Packard Co.	4945	K-Best Technology	4719	Microcell Communications	5579	OpenPath	2563-3C
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Hua fu Hang Industrial (China)		KOSAN I&T Co., Ltd.	6531-2	Mobile Mark, Inc.	4837	Panasonic Wireless	4533
Co., Ltd.	6614	KUDA Phonebase	3010	MobileWay	4618	Paradigm Wireless	3073
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Hughes Software Systems	3415	KWA Design Group	5675	Mobitron	6345-6	Paymentech	2466
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HYPRES, Inc.	729	La Marche Mfg. Company	929	MOTOCODER	2563-2C	PECO II, Inc.	1131
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ICT Group, Inc.	4547	Laminated Wood Systems	1354	Motorola	4245	Pen & Internet	4967
IDA Corporation	6126	LapLink Inc.	1056			PFSWeb	2018

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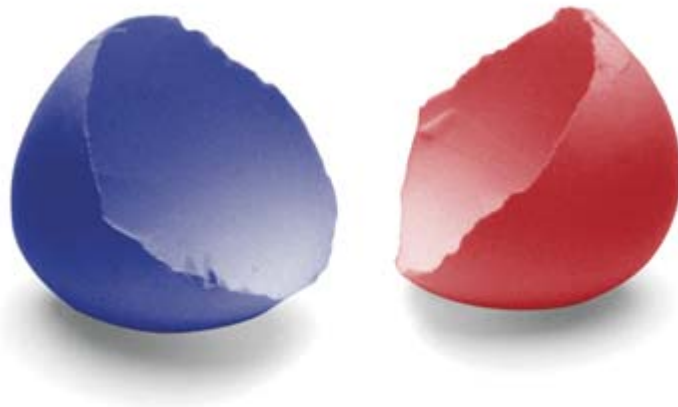
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Pinacall Communications.....	1614	ScanSoft Inc.....	1718	Tektronix, Inc.	6231	USA Cell.....	5674
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Plantronics, Inc.....	3313	Schlumberger	3031	Telcowa Co., Ltd.....	6531-7	Valere Power.....	3910
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Samsung Telecommunications		Systems Division	933	Systems Off.	7225		
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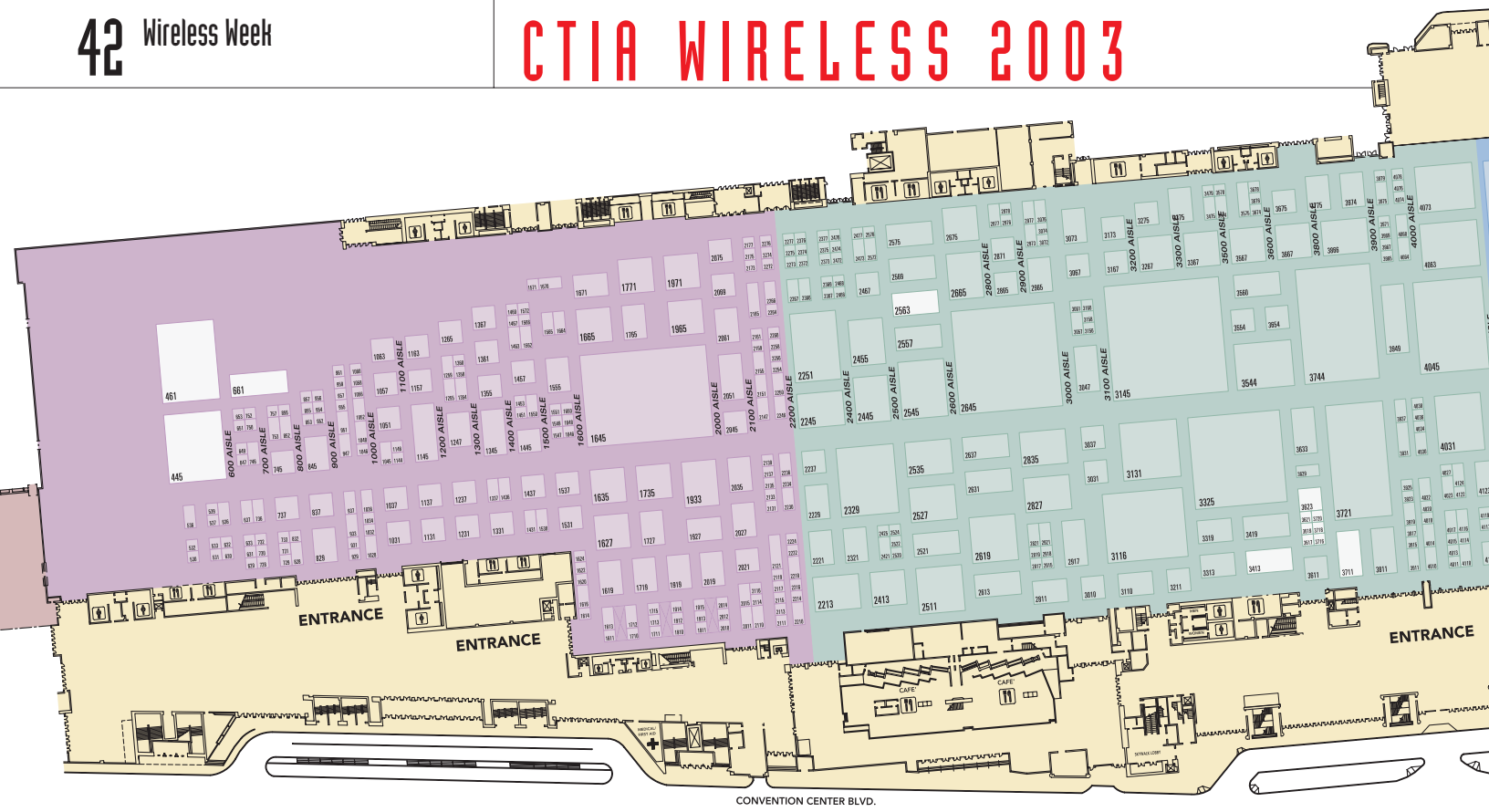
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Intel's Otellini Talks Manitoba

Last week, Paul Otellini, president and COO of Intel, was talking about Centrino. This week at CTIA Wireless 2003, you can expect Manitoba to be on his lips. But he won't be talking about the Canadian province.

Manitoba is the code name for

Intel's PXAA800F chip for mobile phones and likely will be a big part of the message that Otellini gets across in his keynote address today. The chipmaker hopes the new product gives it a bigger share of future handsets, just as it hopes Centrino's built-in Wi-Fi functionality will ce-

ment its place in laptops.

The chip combines the functions of a microprocessor, a baseband processor and flash memory for the next generation of smartphones. It is intended to not only bring added functionality to smartphones, but also to bring down the prices to make them a mass market item.

Intel has said the PXA800F, initially targeting the GSM/GPRS market, is the company's marquee handset product this year. It is based on the technology developed for its XScale processor under the Intel PCA (personal client architecture) label. The company believes the new processor can turn the mass market cell phone into a wireless Swiss Army knife by supporting the multitude of applications carriers want to differentiate themselves.

The single chip solution is designed to be used in 2004 model year handsets costing between \$100 and \$250, running a real-time operating system and having such standard features as a color screen, camera for still images and video playback, multimedia messaging, Java, Bluetooth, MP3, multimedia games, polyphonic ring tones, personal information managers and



Now *That's* Flexible



"Cirque Ingenieux" will be the featured entertainment at the 10th annual Wireless Gala at CTIA Wireless 2003.

The gala, which starts at 6 p.m. at the convention center, will conclude Tuesday's show program. Tickets are available at the general registration counter area or online at www.wireless2003.ctsg.com/special_events. Pricing ranges from \$195 per seat to \$1,950 for a table of 10. Last-minute gala-goers also can check the table outside the hall to buy tickets.

CTIA says cirque-style shows have been mesmerizing audiences throughout Europe for more than 100 years. Whether on stages, in theaters or in single-ring tents, the performances have evolved through the years into one of the most elaborate entertainment extravaganzas.

support for memory cards. It also will support enhanced features like GPS for location-based services, and video capture. In addition, it can handle all four global GSM/GPRS bands.

The Manitoba has three PCA subsystems that normally require four or five discrete chips, doing that by combining flash memory and processing onto a single chip. That will enable much faster response time when using a Java application on a handset, Intel said.

The company has said the PXA800F will reach volume production by the end of the year and will continue to ramp up in volume in 2004. *W*

Green A Big Color At CTIA This Year

The refurbishing of used wireless phones is taking on a socially conscious tone at Wireless 2003.

Ann Arbor, Mich.-based phone refurbisher ReCellular is collecting used phones at Booth 5664 and says it will donate to the March of Dimes any proceeds from the sale of those phones.

The company says it will process more than 4.5 million phones this year—received from charities as well as from wireless carriers and manufacturers—with many of them getting marketed for resale to service providers in developing nations. ReCellular says that when it receives donated phones for recycling, it shares with the donor a chunk of its revenue from refurbishing and

reselling the handsets.

Naturally, ReCellular and others with similar programs are exhibiting at Wireless 2003 to seek new partners, both in the profit and non-profit sectors.

Separately, phone refurbisher The Wireless Source is announcing on Tuesday a multinational phone recycling initiative. The Bloomfield Hills, Mich.-based company, which also provides recycling programs through its Charitable Recycling USA and Charitable Recycling Canada efforts, is holding a news conference at 11 a.m. Tuesday in Room 252 of the convention center to discuss its plans.

The Wireless Source is exhibiting at Booth 2147.

—By Wireless Week Staff

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Customizing The Masses

BY BRAD SMITH

The words “mass customization” might sound oxymoronic, but that’s the message Pinnacor is trying to get across at CTIA Wireless 2003 this week. The company, formerly called ScreamingMedia, is announcing relationships with several carriers and each one is different.

Steven Spencer, executive vice president of Pinnacor’s Access Solutions unit, says the company provides customization around existing infrastructure. That gives carriers the capability of focusing their customer offerings for specific targets, he says.

“We focus on ROI,” Spencer says. “Nobody is investing in speculation these days.”

Pinnacor announced contracts or

service delivery with Virgin Mobile for its VirginXtras service targeting young adults and teens; Rural Cellular Corp. for its branded Web portal; Midwest Wireless for a hosted SMS portal; and Verizon Wireless for its enhanced messaging application using SMS.

“There is no deal that exactly mirrors another one. It’s all plug and play, mix and match. That is the trend. No one size fits all.”

In each case, Spencer says, Pinnacor took its basic technology, which he likened to Lego building blocks, and put them together in the way the operator wanted.

“There is no deal that exactly mirrors another one. It’s all plug and play, mix and match. That is the trend. No one size fits all,” Spencer says.

Pinnacor “building blocks” include Web and wireless portals, including wireless “portlets” for an existing portal, messaging services, integration and premium content.

RCC’s new Web portal, which it is

local baseball teams, as well as integrated messaging and time or event-based alerts. Call Sciences provides a feature that allows users to have their e-mail read to them or set up a conference call.

For Virgin Mobile, Pinnacor provided aggregated audio content, an audio content delivery platform and personalized ringtone download capabilities. Virgin Mobile users can use the service to get a wake-up call with a celebrity greeting or receive a “rescue” call when their date goes sour.

Midwest Wireless uses Pinnacor for a hosted SMS portal to delivers “neighborhood” news to its Mankato, Minn., subscribers.

Verizon already had its messaging platform but wanted content that could be delivered via SMS, which Pinnacor provided. Spencer said Pinnacor provides about 70 different content categories for Verizon. **W**

Hot Regulatory Topics: E911, Spectrum Policy Reform

BY MARK ROCKWELL

While CTIA Wireless 2003 showcases innovative products and technologies, it’s also a time for the industry to come together and tackle some of the sticky regulatory issues coming out of Washington, D.C.

When it comes to the regulatory scene, this year’s conference differs significantly from previous years. Many of the new technologies and services touted at earlier shows are actually being deployed, not only changing the networking environment but prompting new regulatory fights as well.

In the last few weeks, Congress has begun considering how to build better laws to navigate new and evolving wireless regulatory waters. Nowhere was this grappling more evident than in two recent Senate hearings on Capitol Hill in mid-March. On two consecutive days, the Senate Commerce Committee convened hearings examining enhanced 911 issues and spectrum policy reform. During the hearing, senators questioned wireless, emergency response and economic officials on a variety of issues concerning developing wireless technology

and how best to help it along, while protecting the public.

Between them, the two hearings produced promises of a new framework for wireless regulation—at least, promises of immediate legislation on some issues—and a new E911 initiative from the FCC.



**WATCHING
CONGRESS**

The hearing on E911 showed how lawmakers are struggling with the inherent problems of having advanced wireless technology embedded in a critical function of government. Senators at the hearing included some heavyweights, including Committee Chairman John McCain, R-Ariz., and Sen Hilary Clinton, D-N.Y. “What good are FCC rules if responders can’t respond” to E911 calls? Clinton asked.

“We need the FCC’s help to create clear guidelines and create certainty,” Clinton, along with senators Conrad Burns, R-Mont.; John Shimkus, R-Ill.; and Rep. Anna Eshoo, R-Calif., unveiled an E911 caucus that will facilitate emergency response efforts in Congress.

Additionally, Burns said he planned to introduce a bill that would stop state governments from using money garnered from surcharges on wireless phone bills from being siphoned off for other state budgetary uses—one of the biggest problems with E911 service deployments.

FCC commissioners Jonathan Adelstein and Kathleen Abernathy said the FCC would start up a new national E911 Coordination Initiative that would act as a clearinghouse and resource for states, carriers and consumers to create a clear understanding of what efforts and events are occurring with E911 deployment.

The effort is aimed at following up on the findings in the Hatfield Report, according to FCC officials. Dale Hatfield is scheduled to speak at the first meeting of initiative participants on April 29. The meeting is expected to draw carrier, public safety and other

interested stakeholders.

Additionally, commissioners Abernathy and Adelstein have declared that the times of additional deadline extension for carriers to deploy E911 systems are at an end. “If carriers come to us seeking additional waivers ... we should think enforcement first,” Adelstein says. The FCC has fined carriers millions in the last 12 months for missing deployment dates.

The hearing on spectrum policy didn’t produce much in the way of firm action plans but did shed light on how Congress is conceiving its role in helping to set up a new regulatory framework for the wireless industry. The hearing centered on the FCC’s Spectrum Policy Task Force report that recommended a variety of new approaches to consider in regulating a competitive wireless industry.

Burns said he would introduce a bill that would include spectrum reform based on some kind of market-based spectrum distribution, possibly a combination of royalty approaches. Shared ownership between government and private companies is best, he says, basing that observation on the way the government handles other “public” resources, such as grazing land. **W**

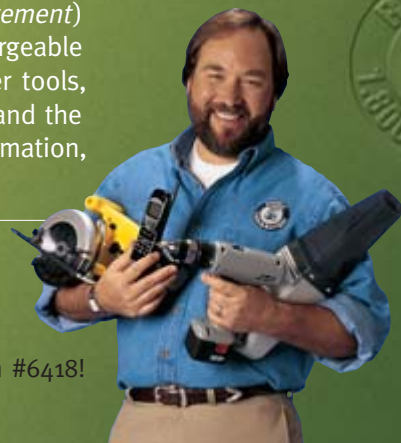


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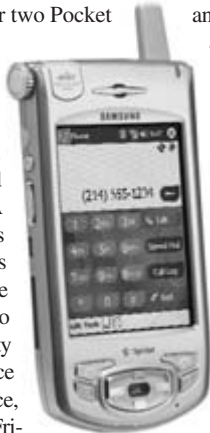


Microsoft Focuses On CDMA, Developers

BY BRAD SMITH

Microsoft enters the CDMA handset world at CTIA Wireless 2003 with today's expected announcement by Sprint PCS that it will offer two Pocket PC Phone Edition handsets, the Samsung i700 and the Hitachi G1000.

Microsoft's role in the show doesn't end with the two CDMA handsets, however, as Chairman Bill Gates will deliver the keynote address Wednesday to the Microsoft Mobility Developer Conference 2003. That conference, which runs through Friday, is the company's first in the United States and is expected to draw 1,000



Samsung i700

developers.

In addition, Research In Motion is expected to announce a deal with Microsoft to build a BlackBerry e-mail software client for both the Pocket PC and Smartphone platforms. That would allow users of those devices to get their enterprise e-mail through BlackBerry's always-on e-mail servers.

The Samsung and Hitachi handsets were both unveiled at the International Consumer Electronics Show in Las Vegas in January. Sprint said at the time it expected to offer the Hitachi device this year. The carrier is expected to confirm that at CTIA, as well as to announce it will sell the Samsung device in the second quarter.

In addition to Microsoft's software, both devices have built-in cameras and color screens. The Hitachi device also has an integrated keyboard.

Both Samsung and Hitachi also have said they plan to build devices using the Microsoft Smartphone platform.

As far as the mobile phone industry goes, the CDMA world may be a fertile landscape for Microsoft because the technology is not dominated by GSM powerhouses such as Nokia. The Finnish giant is behind the Symbian smartphone platform, around which several devices have been announced. A GSM/GPRS phone using Microsoft's Smartphone software—built by Taiwanese manufacturer HTC—was launched last year in the United Kingdom by Orange.

Ed Suwanjindar, a product manager, said the combination of the developers conference in conjunction with CTIA and the product and RIM software announcements show how important mobility is to Microsoft. The

company believes developers are the key to providing the kinds of applications that will generate new revenue streams for carriers, he said, and that's why they're being brought to the New Orleans event.

"We think the developer community is one of the key assets that Microsoft brings to the table," he said, referring to the potential of 7 million Windows developers.

This is the first Microsoft Mobility Developers Conference in the United States. The first was held nearly a year ago in London. *W*



Hitachi G1000

Firm Sees Varying Mobile Game Scenarios

A new white paper on the future of mobile entertainment sees the market booming in the next several years, but also notes it's unclear exactly who will shape it.

The consulting firm Booz Allen Hamilton today releases a major study on the structure and future of mobile entertainment, in conjunction with the Mobile Entertainment Forum held at Wireless 2003.

The firm's white paper cites myriad figures from other sources that forecast the overall mobile entertainment business — encompassing ringtones, music, games and similar content for phones, MP3 players and other digital handhelds — could generate more than \$16 billion annually by 2005, compared with about \$1.6 billion in 2001.

But who will drive the market: wireless carriers, content developers, handset makers or software providers? Booz Allen says a period of intense competition, innovation and consolidation will determine which of those

scenarios defines the mobile landscape, while not drawing any conclusions about which is most likely.

The firm does cite eight technology and strategy drivers for the growth of mobile entertainment.

The technology drivers are digital rights management and the need for content developers to have their rights protected; platform technology and the need for widely deployed platforms that prevent the need to develop a different application for each different platform and device; network infrastructure with sufficient coverage, capacity, reliability and security; and the availability of mobile devices that can support increasingly sophisticated entertainment applications.

The strategy drivers will include consumer demand, consolidation of mobile operators, creation of workable revenue models and "outside threats" from other available entertainment platforms that compete with the mobile platform. —By Wireless Week Staff

Autodesk Partners On LBS With Ericsson, Openwave

Autodesk Location Services has partnered with Ericsson and Openwave Systems in separate deals to deliver location solutions to wireless carriers. Autodesk also is demonstrating the latest release of its software platform, LocationLogic4, and applications suite, Location Connect, at CTIA Wireless 2003.

The deals with Ericsson and Openwave are separate but similar.

Ericsson and Autodesk will market a jointly developed, end-to-end LBS solution for operators based on Ericsson's infrastructure and Autodesk's software and geographic information systems expertise.

Openwave and Autodesk will collaborate on marketing and sales to carriers with a unified LBS offering that includes Openwave's infrastructure and software, as well as Autodesk's platform.

A central feature of both offerings will be Autodesk's LocationLogic4 and Location Connect. The CTIA demonstration of the software will use a Java 2 Micro Edition application to show how services can increase network traffic, create differentiation and generate customer loyalty, said David Maischoss, marketing and sales vice president for the San Rafael, Calif.-based company.

Maischoss said all the major U.S. carriers plan to launch services this year utilizing LBS because of the FCC's mandate for enhanced 911 location capabilities. In Europe, he said, the carriers are seeing more demand from end-users for such content as location-based information and games.

One European carrier, he said, has done an internal study that shows the number of billable events on its network increases when subscribers using LBS services come within close proximity to friends and family.

Telecom Italia Mobile in Italy has used Autodesk's LBS services for about a year, initially for telematics applications such as traffic alerts.

One of the J2ME applications being demonstrated at CTIA is an apartment finder application developed by Autodesk in less than a week, Maischoss said. It will be demonstrated using a Sony Ericsson phone. —By Brad Smith

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Verizon from page 1

running on a trial basis in Washington, D.C., and San Diego.

The move will be the biggest so far by a major U.S. carrier into the next generation of wireless data, and a clear signal Verizon sees its success in courting business customers as being closely linked to its ability to exploit advanced network technologies for such competitive services as remote access to corporate e-mail and networks.

But the major elements of the carrier's strategy rest with a change in how it approaches business customers, ranging from individual mobile professionals to *Fortune* 500-sized enterprises. Verizon plans to shift the marketing and sales of its product portfolio to address the differences in four

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Stratton

voice and data services to all comers.

Verizon executives say they are comfortable with the number of business customers they've garnered so far with a voice-centric offering, but as the wireless business matures, growth slows and networks and devices enable more sophisticated services, that strategy won't work any more.

"There's a need for a very different approach, sort of a seismic shift in the way we do business," says John Stratton, Verizon Wireless vice president and chief marketing officer.

A critical differentiator in approaching business customers will be recognizing the differences in the four major segments: mobile professional, small office-home office, small and medium-sized business, and enterprise, Stratton says.

Verizon also is segmenting its product and service offerings into four general categories: voice solutions, e-mail and information management, custom or vertical market solutions, and remote access.

Stratton says e-mail has been the most critical application in motivating businesses to deploy wireless capabilities, but the different markets have significantly different needs in getting

wireless e-mail.

For example, a single user or small office might access its e-mail remotely via "redirector" software that pushes it to a mobile phone or wireless PDA. "If I tried to sell that to an enterprise I'd be thrown off the campus," says Stratton, noting the different level of security and IT support needs inherent in larger organizations.

Push-to-talk, which will be a big discussion topic at Wireless 2003, is another example. It falls into the voice services category but will be marketed differently to the business market than to consumers.

Segmentation also will be apparent in customer service offerings. Instead of the dedicated toll-free customer support or help desk line that might be sufficient for a small office, Verizon will offer "help desk to help desk" and even "network operating center to network operating center" support lines.

Stratton says the capabilities necessary for providing services such as secure remote access only have been enabled by the recent deployment of the company's 1XRTT packet-based networks.

"If you were thinking about it two

Major Business Segments

- Mobile professional
- Small office-home office
- Small and medium-sized business
- Enterprise

Product/Service Categories

- Voice solutions
- E-mail and information management
- Custom or vertical market solutions
- Remote access

years ago, it would have had to have been IS-95 circuit-switched at 14.4 (kbps) or CDPD, and those were really not viable solutions for wide deployment," he says.

When asked, Stratton dismisses any perceptions that by focusing this week on its business customer strategy might be perceived as a way to shift attention from Verizon's consumer-oriented offerings.

"We're feeling very good about our consumer business," Stratton says. "This is an important signal to the industry that we expect to dominate on the enterprise side." W//

Tauzin from page 1

market could bring to America.

In a wired telecom world that's even more clouded than ever, wireless has become a beacon. "There are some amazing changes ahead in the next four or five years. Wireless is becoming more and more important," Tauzin said in an interview with *Wireless Week* prior to the show. "Wireless is going to be subject to some of the same changes" that face any advancing telecommunications technology, he cautions. Making industry aware of those changes and some of the intricacies involved in them will be the guiding theme in Tauzin's presentation to CTIA, he says.

Wireless has the potential to be a primary contender—along with cable boxes and DSL lines—in the fight to get broadband services to America, he says. There are some issues that don't necessarily directly involve technology that are also driving telecom policy, however. The current drive by Congress to prod the en-

tertainment industry to develop interesting content is an important part of the telecom puzzle, according to Tauzin. Without compelling content, demand for fast, quality high-speed connections

Wireless will continue to have a transformative impact on telecommunications services.

won't develop as quickly, he says.

Wireless still is a highlight for the FCC, which is working to shore up a flagging wired telecom effort. "Wireless services have provided the model for voice and video, and data telecommunications. Wireless will continue to have a transformative impact" on telecommunications services, in general, says Brian Tramont, senior legal advisor to Powell.

That transformation, however, has hit

some bumps lately. Wireless services have enjoyed an explosion in popularity in the last few years. The effects of that explosion are becoming evident as consumers complain about dropped calls, Byzantine billing and foggy marketing from carriers. Service quality, billing and even wireless emergency 911 services are under increasing scrutiny by lawmakers, as wireless technology becomes even more ubiquitous.

In spite of the growing consumer complaints, FCC officials say Powell is bullish on wireless as an alternative to wired broadband services, as well as regular wireline voice services. The commission is beginning to sort out how to effectively use available spectrum to spur competition. Issues such as secondary markets, shared spectrum and how to more efficiently use spectrum already in use top the commission's to-do list following the groundbreaking Spectrum Policy Task Force report issued last year.

Despite the report's advanced view of the wireless world, old arguments

remain. For instance, arguments are set for April 15 in the U.S. Court of Appeals over a CTIA filing asking the court to investigate what the organization calls "unequal rules" concerning local number portability as it applies to wireline and wireless carriers. CTIA argues that Congress didn't extend its number portability mandate to wireless carriers and the FCC doesn't have the authority to impose a deadline without congressional back up. Nevertheless, the FCC is quietly adamant about the upcoming wireless LNP deadline for large carriers coming up in November.

The commission had granted four previous deadline extensions but is in no mood to grant another. Court fight expected, the LNP issue is "dead" at the commission, FCC officials say. CTIA President and CEO Tom Wheeler has said this court case could shake the very bedrock of telecommunications policy if the court decides wireless and wireline LNP rules should be aligned. W//



CTIA WOULD LIKE TO THANK THE FOLLOWING COMPANIES FOR THEIR SUPPORT OF CTIA WIRELESS 2003



Sony Ericsson



Data from page 1

However, Schimel says AT&T Wireless has been “delighted and surprised” by the lack of resistance from consumers when it comes to paying for mMode services. In fact, Schimel says recently some of AT&T’s sales representatives have reported customers are asking for rate packages that include bigger buckets of data. “If it’s a good application, people will pay,” Schimel says. “People are downloading and they are paying.”

Qualcomm’s Gina Lombardi, senior vice president of marketing and product services for the company’s Internet services group, which oversees the BREW program, concurs. “We are paying BREW developers millions every month and we see those numbers going up. Developers are making money.”

Text messaging is one area of data usage in particular where carriers are reporting great results. “We’re seeing a cultural shift and a willingness to do text messaging,” Schimel says. As of December, AT&T had 16 million SMS-enabled subscribers and of those, more than 3 million were ac-

Sega: M-Generation Is Prime Target

A few years ago mobile phone users and video gaming aficionados were completely different markets, with mobile phones catering to business people and video games targeting teens. But that isn’t the case any longer. According to Sega.com Director of Marketing and Communications Jennifer Walters, who provided the keynote address at yesterday’s Mobile Entertainment Summit, the primary target for the next generation of mobile device users is Generation M, which Sega.com defines as those consumers who get a mobile phone when they get their driver’s license and are using these devices to transform their personal and professional lives. Walsh said the convergence of wireless phones and video gaming is happening right now because wireless phone subscribers are getting younger (particularly as wireless operators put more emphasis on the teen and young adult market) and video gamers, who previously were primarily 10- to 12-year-olds, are getting older. In fact, according to Walsh, 45 percent of video gamers are younger than 18 years of age, 36 percent are aged 18 to 35, and 20 percent are 36 years and older.

Generation M, said Walsh, uses phones to do “cell dancing,” i.e. using the phone’s locator service to find buddies, and for “posse pinging,” or touching base with pals through text mes-

saging or voice mail. This group, more than any other, has benefited from the convergence of information and entertainment.

And Sega.com believes the potential for this group of M Generation users in North America and worldwide is great. Walsh quoted recent analyst research figures that forecast wireless gaming to be a \$125 million business by 2006 and a \$9.8 billion business by 2008.

Driving these numbers are recent developments in devices. Walsh said there currently are many examples of how mobile devices are becoming more gamer-friendly, including multiple key press, bigger and more colorful screens and more powerful software interfaces to name a few. And she sees great promise from Nokia’s recently announced N-Gage gaming platform, for which Sega.com is developing five games. The company is also in partnership with Sprint PCS, Alltel, AT&T Wireless and Bell Mobility.

But that doesn’t mean mobile gaming won’t face challenges ahead. Walsh said developers must continue to come up with challenging content and the entire industry needs to teach the consumer about mobile gaming. “We need to teach the consumer about the benefits of gaming and build the right partnerships between content providers and carriers,” Walsh said.

—By Sue Marek

tive users. In addition, the company processed 240 million messages in December and Schimel says it ex-

pects that figure to jump, especially with its recent “American Idol” messaging promotion in which AT&T

subscribers can use SMS to vote for their favorite performer on this popular FOX Network TV show. ■■

Accenture’s Focus This Year Is Wi-Fi

BY WIRELESS WEEK STAFF

Accenture is no stranger to the annual CTIA Wireless gatherings, but this year the management consulting and technology services company is pairing up with a partner to get the message out about its wireless LAN hot spot capabilities.

Accenture is sharing a pavilion with Toshiba (#4767) to highlight the work the firm is doing to support Toshiba’s groundbreaking hot spot strategy, through which it aims to deploy up to 10,000 public wireless LAN locations by the end of this year.

Toshiba is going head to head with the likes of hot spot aggregator Boin-go Wireless, mobile and WLAN operator T-Mobile USA and WLAN services wholesaler Cometa to offer turnkey public wireless LAN equipment and services to businesses, land-

lords and others who want to get into the hot spot business.

John Romanow, a partner in Accenture’s Communications & High Tech operating group, notes that his firm’s back-office support for Toshiba combined with that company’s use of its own 802.11 hardware helps push deployment costs down to a point where the hot spot business model begins to make sense both for Toshiba and for its clients.

He speculated that deploying suitable gear for a public hot spot costs about \$1,000, compared with Toshiba firmware that Romanow says is less than \$200.

“The required number of connections per day per hot spot is significantly lower to cover your cost than some of them currently in place today,” Romanow says. “They believe this business is going to be cash flow positive by the end of this year, and we support that.”

That’s also where Accenture comes in. The firm is providing Toshiba with business support systems and OSS support, including Tier 1 and Tier 2 tech support leveraged by Accenture’s net-

work of call centers; billing and settlements processing. That enables Toshiba to deploy the service without the costs of creating its own back office systems.

The infrastructure also is critical for providing cost-effective support of roaming agreements Toshiba is able to negotiate with other hotspot providers. ■■

BITS

- **Symbian and Research In Motion** today announced plans to develop a BlackBerry connectivity solution for Symbian OS licensees and wireless carriers. The pair say the solution will enable wireless e-mail and corporate data services on Symbian OS phones.
- **Nortel Networks** says it has completed voice and data calls on CDMA2000 1XRTT and 1X EV-DO networks using 2.1 GHz radio spectrum. The tests, done at Nortel’s Global Technology Center in Ottawa, Canada, was aimed at showing

the viability of those networks in China, where the spectrum is being considered for commercial wireless use.

■ Broadband communications equipment maker **Carrier Access Corp.** is demonstrating a new business-case modeling tool developed with wireless industry analyst TeleChoice, at its booth #5465. The tool is intended to help demonstrate backhaul and capital expense savings possible with Carrier Access’ Axxius 800 Access Integration Platform, the company says.



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7:30 am - 6:00 pm

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8:00 am - 11:00 am

Day One Keynote *Hall I*

9:00 am - 6:00 pm

Association of Wireless Professionals
Certification Course *Room 269*

IEEE WCNC 2003 Conference

11:00 am - 12:30 pm

The Smart Pass Executive Conference *Room 280*

11:00 am - 2:00 pm

Mobile Wireless Technologies for
Persons with Disabilities *Room 267*

11:00 am - 6:00 pm

Exhibits Open *Hall A-H*

11:30 am - 12:00 pm

Fashion in Motion: Wireless Fashion Show *Hall A*

12:00 pm - 5:00 pm

VIP Retailer Retreat *La Louisiane Ballroom*

12:30 pm - 2:30 pm

Series 60 Community Seminar *Room 217*

1:00 pm - 2:30 pm

CTIA Educational Plenary Sessions *Rooms 260, 271, 275*

2:00 pm - 2:30 pm

Fashion in Motion: Wireless Fashion Show *Hall A*

3:00 pm - 5:00 pm

Series 60 Community Seminar *Room 217*

3:30 pm - 4:30 pm

Class on the Grass, Anyone? *Room 267*

3:30 pm - 5:00 pm

CTIA Educational Breakout Sessions *Rooms 261, 265, 270, 272, 276, 278*

4:00 pm - 4:30 pm

Fashion in Motion: Wireless Fashion Show *Hall A*

Wireless

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