



#### **PUBLISHERS:**

KENT HUFFMAN Chief Marketing Officer, BearCom

BILL NEWTON

Principal, BNewton Associates

#### **EDITORS-IN-CHIEF:**

JOHN WATSON Chairman, BearCom

JERRY DENHAM
President & CEO, BearCom

#### **MANAGING EDITOR:**

HOLT HACKNEY
Partner, Hackney Communications

#### **ASSOCIATE EDITORS:**

KRISTIN KIRKHAM

Marketing & Technical Writer, BearCom

ELIZABETH LOVE

<u>Marketing Coordinator, BearCom</u>

#### **CREATIVE DIRECTORS:**

RANDY MOTT

Principal, Mott Graphics Incorporated

ROBERT BONVILLION
Principal, Bonvillion Graphics

#### **CONTRIBUTORS:**

BRENT BISNAR

Executive Vice President, BearCom

JOHN CZAPKO
Vice President of Sales, BearCom

IAN TOROK

Director of Technical Services, BearCom

MIKE BUTLER

Project Manager, BearCom

HUGH JOHNSTON

Purchasing Manager, BearCom

SCOTT RIDDLE

Digital Sales Supervisor, BearCom

#### **TODAY'S WIRELESS WORLD**

c/o BearCom • P.O. Box 559001 Dallas, TX 75355 • 800.527.1670 www.TodaysWirelessWorld.com



#### Fall 2007

# Contents

- OPENING THOUGHTS:

  Reaping Safety and Efficiency through Wireless Technology
- COVER STORY (Events):
- Renting Wireless Equipment: An Eventful Experience
- PRODUCT REVIEW (RIM BlackBerry 8830 Smart Phone):

  New BlackBerry Smart Phone Shrinks the World
- INDUSTRY SPOTLIGHT (Retail):

  Retail Industry Takes a Wireless Bite Out of Crime
- ASK WIRELESS WOMAN:

  Questions and Answers about Pagers and Batteries
- 12 COMIC STRIP:
  The Adventures of Wireless Woman
- WIRELESS LIFESTYLE (Winemaking):

  Taking Some of the Guesswork Out of Winemaking
- SUCCESS STORY (City of Grandview Heights, Ohio):
  Installing a New Dispatching Technology for a Police Department
- AROUND THE WORLD:
  Wireless News and Views
- CALENDAR:
  Upcoming Wireless Industry Events
- FINAL WORD:

  Education's Role in the Growth of Wireless Technology

© 2007 BearCom. All rights reserved. While every effort has been made to ensure that the information contained in this publication is as accurate as possible, BearCom is not responsible for any omissions or errors.

"Wireless devices and accessories have become ubiquitous at events and are helping to dramatically increase efficiencies for the organizers and improve safety for the attendees."

#### **Keith Kostek**

President Impact Radio Accessories



In addition to publishing Today's Wireless World,
BearCom sells, rents, and services a broad line of quality wireless communications products and designs and implements complete mobility solutions. Thousands of organizations around the world depend on BearCom to help keep them connected... everywhere, all the time.

#### **OPENING THOUGHTS:**

# Reaping Safety and Efficiency through Wireless Technology

By John Watson and Jerry Denham

A moment after San Francisco Giants slugger Barry Bonds hit his history-making home run at AT&T Park this summer, wireless technology was called into action. Stadium police quickly descended on Matt Murphy, who caught the suddenly valuable baseball and advised the command post through their wireless devices that they had found the fan. As if they were guarding an armored truck, the police hustled Murphy out of the stadium for his own safety, communicating their position along the way.

While this may be a rather sensational example of how wireless technology is being used, it is nonetheless instructive of how tens of thousands of sporting events, conferences, and trade shows rely on rented wireless communications equipment to create a safe, efficient business climate. Our cover story in this issue takes a look at this technology and the litany of ways in which it can make the event manager's job much easier.

Of course, the benefits of wireless technology do not begin and end with sporting events but extend to many other applications. In our lifestyle piece in this issue, we look at how wineries are using this technology to ensure the quality of their product—the wine—with improved monitoring capabilities. Similarly, the retail industry enjoys enormous benefits from wireless technology. On one hand, retailers are using it to reduce theft by installing wireless video surveillance systems in their warehouses. On the other hand, these companies are also leveraging wireless to create a more positive experience for customers and to ultimately sell more products.

As promising as the present appears, the future looks even better, especially with companies like Research In Motion introducing powerful devices like the Sprint BlackBerry 8830 World Edition, a mobile device without peer for the executive who must travel the world.

Our new feature, Ask Wireless Woman, examines the resurgent interest in pagers as well as the improving technology around the batteries being used in mobile devices.

Lastly, there's the Final Word by Mark Kroh of Motorola, who stresses the need for education if companies are ever to leverage the full benefits of wireless technology. Ultimately, Kroh would like to see what his company calls seamless mobility—or "a new world in which wireless users are mobile, informed, entertained, secured, connected and empowered." Realizing such a vision would be a true home run. •

"...the benefits of
wireless technology
do not begin and end
with sporting events but
extend to many other
applications."



JOHN WATSON
Chairman, BearCom
JERRY DENHAM
President & CEO, BearCom



#### **COVER STORY (Events):**

# Renting Wireless Equipment: An Eventful Experience

By Holt Hackney

Sporting events, trade shows, concerts, fairs, festivals, corporate events... they all have at least one thing in common: they need wireless communications to operate effectively and efficiently.

Take the 2007 Vegas Grand Prix for example. More than 200 portable two-way radios, a dozen repeaters, and a complete wide-area coverage operation were implemented by BearCom and the event manager for the first-year race. The keystone communications device was the Motorola PR400, a radio that's perfect for racetrack noise conditions, mainly because of its embedded, noise-canceling microphone.

Eric Stephens, Director of Rental Sales for BearCom, identified other wireless communications solutions that are being welcomed by leading event management companies nationwide. For example, at a recent X Games event, BearCom implemented a wireless video surveillance system for ESPN at several remote parking lots using Sony IP cameras and Firetide wireless mesh routers. The video was relaved to event managers as well as stored on a hard drive, allowing ESPN to control traffic by sending extra buses to pick up spectators at the remote lots as necessary. The cameras also served as a deterrent to criminal activity, given that they were visible to would-be felons.

Stephens added that wireless video surveillance is becoming a popular option at trade shows as well. "Video surveillance allows a show manager to view, capture, and record high-quality video of high-traffic areas, which acts as a force multiplier for the show security team," said Stephens.

# Managing a Large Event-No Day at the Beach

When GL Events, a global event management company based in Lyon,

France, began formulating a bid to manage the ICC Cricket World Cup 2007 in the Caribbean, BearCom was first on the proposed wireless partner list.

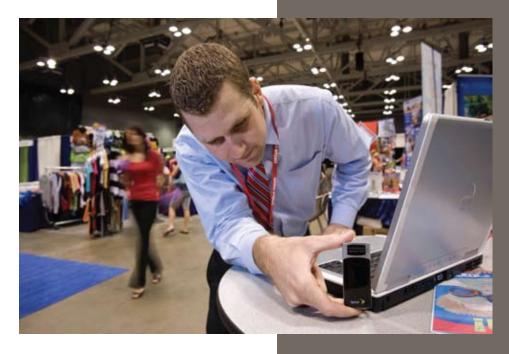
"A good wireless technology solutions provider offers many benefits to the event manager," said Brent Bisnar, Executive Vice President for BearCom. "Our experience in working with the major sports leagues on their respective all-star games has helped us refine our capabilities and made us that much more attractive to GL Events. Events like these are becoming more and more complex, with needs for enhancing security, providing fan safety, and facilitating media access, to name a few. Leading wireless technology providers understand this and are able to devise effective solutions for their customers."

It's a capability that event management companies do not take for granted, according to Steve Kilby, who leads the technical services team at GL Events.

Continues on page 5...

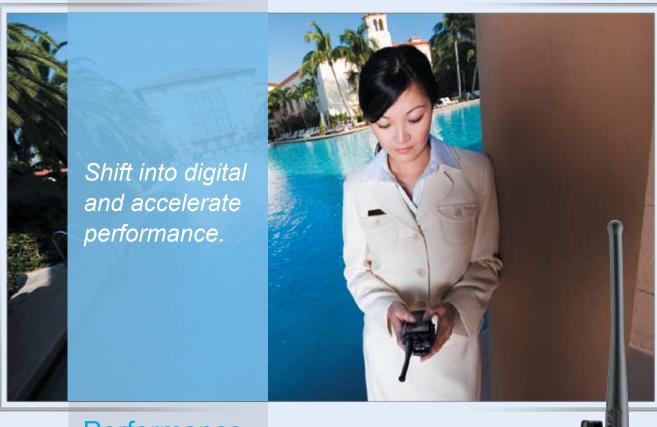


Rented Motorola two-way radios, Nextel push-to-talk phones, and Sprint mobile broadband cards are often utilized to enhance security, improve communications, and provide access to the Internet at all types of events, both large and small. Fairs, festivals, concerts, trade shows, and sporting events are among the most frequent applications for such wireless communications devices.



# MOTOTRBO™

## The New Professional Digital Two-Way Radio System from Motorola



Performance. Productivity. Value.

With enhanced performance, productivity, and value, MOTOTRBO is Motorola's first digital two-way radio system specifically designed to meet the requirements of professional organizations that need a customizable, business-critical communications solution using licensed spectrum.

MOTOTRBO. The future of two-way radio.



For more information, contact BearCom: 800.527.1670
www.BearCom.com/motorola



"Radio communication has developed from a basic walkie-talkie, person-to-person solution into an integral, critical, and complex element of event management."

**Steve Kilby** GL Events

#### ...Continued from page 3

"Radio communication has developed from a basic walkie-talkie, personto-person solution into an integral, critical, and complex element of event management," said Kilby. "It's common now for events to have multi-channel communications over many hundreds of handsets, and to do that effectively takes state-of-the-art equipment, foresight, and good planning."

At the Cricket World Cup 2007, GL Events was responsible for providing the temporary components required to make all 12 venues, spread across a number of islands in the Caribbean region, "World Cup-ready." "This was a tremendous undertaking," said Bisnar. "On our end, that meant securing equipment, getting it through customs, and working with the local organizing committee on each island. We also had to manage the process of getting our own team to the venues and housing them there."

"The Cricket World Cup was a huge logistical and technical challenge," said Kilby. "Radio communications were identified at the outset as a key component. BearCom was chosen as our rental provider because of its cost-effective response to the tender and the excellent references. The equipment, the people, and BearCom's ability to work as part of our team were all outstanding."

#### It Takes More than Just Equipment

Finding a wireless technology solutions provider that offers a breadth of products and technologies is becoming easier as more and more companies rush to embrace proven efficiencies. But at the same time, very few providers combine that offering with a large rental

equipment fleet, deep event experience, and the technical expertise necessary to implement and operate an effective wireless communications system.

In BearCom's case, it has a rental customer list that reads like a "who's who" of the American sporting scene, including organizations like the National Basketball Association, Major League Baseball, United States Tennis Association, ING New York City Marathon, and ESPN.

In addition to possessing a "been there, done that" capability, BearCom completes its overall rental solution to event organizers by offering a portfolio of high-quality wireless accessories—such as headsets and speaker-mics from Motorola, Impact Radio Accessories, and OTTO—that help its customers more efficiently manage their events.

"Because the wireless communications devices are usually required for only a few days or weeks, renting makes a lot of sense for almost any event," added Bisnar. "The efficiencies are inherent to the rental process. Our customers get exactly the wireless equipment and service they want, but they pay for that equipment and service for only as long as they are needed to successfully complete their events."

Holt Hackney is Managing Editor for Today's Wireless World magazine.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.



# Reaping the Benefits from Wireless Technology

As the associate publisher of *SportsTravel* magazine and show manager for the TEAMS Conference & Expo, Lisa Furfine has witnessed firsthand the impact that wireless technology has had on the fast-paced event management industry.

"Most organizers of sporting events wouldn't be able to function properly without wireless technology," Furfine said. "From the event's front lines—such as attendee parking and spectator flow—to the action behind the scenes—such as moving athletes and safeguarding VIPs—it would be next to impossible to manage an event without instantaneous wireless communications."

Speaking for her company and other event organizers who attend the annual TEAMS Conference & Expo, Furfine said they have come to rely on companies such as BearCom as a "preferred single-source provider of quality wireless communications equipment."

"The big draw of the RIM BlackBerry 8830 is its dual-mode functionality."



"The bottom line is, for the globe-trotting executive, the RIM BlackBerry 8830 is a powerful voice and messaging tool that offers world roaming and solid performance."

Bonnie Cha Technology Editor CNET.com

#### **PRODUCT REVIEW (RIM BlackBerry 8830 Smart Phone):**

# **New BlackBerry Smart Phone Shrinks the World**

By Scott Riddle

There used to a popular phrase called "corporate America." Thanks to Sprint Nextel and one of its partners, Research In Motion (RIM), the marketers who come up with such phrases may want to introduce another one: "corporate earth."

Sprint Nextel and RIM have done their part to build a global business community by recently introducing the Sprint BlackBerry 8830 World Edition, a flexible, cost-effective smart phone that includes international voice and data roaming capabilities. It is the first to combine CDMA and GSM connectivity.

With this innovative handset, Sprint customers have the power to make or receive phone calls in more than 170 countries and access BlackBerry data services, including e-mail and Web browsing, in more than 75 countries. "Sprint is making the BlackBerry 8830 World Edition smart phone available with flexible, convenient options designed to appeal to international travelers, especially those customers who may have a significant number of employees working internationally," said Danny Bowman, Vice President of Customer Equipment for Sprint Nextel.

Sprint customers can choose between using Sprint's international roaming service plans and utilizing local providers in international markets. The BlackBerry 8830 includes a SIM card in the device that can be used on the Sprint network. The SIM card, however, is unlocked, a feature that is unique to the Sprint BlackBerry 8830. The unlocked SIM card enables users to swap to a foreign SIM card, allowing the use of a local carrier and phone number for voice service while traveling abroad.

The BlackBerry 8830 operates domestically on the Sprint mobile broadband network (one of the largest and most powerful mobile broadband networks) and globally on CDMA and GSM/GPRS networks (where Sprint has international roaming agreements). "The BlackBerry 8830 World Edition delivers world-class communications, multimedia, and GPS features together with the intuitive BlackBerry smart phone experience that users have come to expect, all in a thin and stylish design," said Mike Lazaridis, President and Co-CEO at RIM.

"The big draw of the RIM BlackBerry 8830 is its dual-mode functionality," wrote Bonnie Cha, one of the leading technology editors at CNET.com. "With this capability, the phone switches automatically between CDMA and GSM networks to offer seamless international roaming. The bottom line is, for the globe-trotting executive, the RIM BlackBerry 8830 is a powerful voice and messaging tool that offers world roaming and solid performance."

Among the features are a speakerphone, voice-activated dialing, and Bluetooth support, which better facilitate handsfree use. In addition, a full QWERTY keyboard and trackball navigation enable easy use of productivity and entertainment applications. Other key features include:

- Built-in GPS: Customers can utilize applications such as Sprint Navigation, spoken and visual turn-byturn driving directions, or BlackBerry Maps, a mapping application.
- OnDemand: This is a unique application available exclusively from Sprint that delivers customized, upto-date information such as sports, weather, news, money, and movie information, all with the push of a single button.
- Phone as a modem: With the included USB cable, customers can

Continues on page 7...



# Global Roaming.

The BlackBerry\* 8830 World Edition smartphone is the stylish way to get things done. It's the first CDMA BlackBerry\* smartphone capable of roaming globally on GSM\*/GPRS networks. So you can travel the world with full mobile voice and data coverage, without having to change smartphones, phone numbers or email addresses.

The BlackBerry 8830 smartphone gives you phone, email, organizer, web browsing and instant messaging. And then it goes a step further, providing GPS, BlackBerry\* Maps, a media player for your video clips and music, and expandable memory to ensure you've got the room you need for your media files.

- Built-in GPS
- Media Player
- · Expandable Memory Capability
- · Phone as Modem

- Fast Performance
- Enterprise friendly, with secure access to corporate data
- · Push email
- · Speakerphone and Voice Activated Dialing

Discover the power and style of the BlackBerry 8830 World Edition smartphone.

Visit www.blackberry.com/blackberry8830 today.

\*\*\* BlackBerry.

© 2007 Research In Motion Limited. All rights reserved. Research In Motion, the RIM logo, BlackBerry, and the BlackBerry logo, are registered with the U.S. Patent and Trademark Office and may be pending or registered in other countries. These marks, images and symbols are owned by Research In Motion Limited. All other brands, product names, company names, and trademarks are the properties of their respective owners.

#### ...Continued from page 6

utilize the BlackBerry 8830 as a wireless modem to extend the capabilities of the Sprint nationwide network to a notebook computer. An appropriate service plan is required.

- Media player: Play videos, audio podcasts, or music files with the built-in media player; also includes a stereo headset jack.
- MicroSD slot: This allows expandable memory to store music and video files.

It's little wonder that the media has embraced this product offering. "With its trackball, media players, and new design, the 8830 might even appeal to people who never leave the country," Sascha Segan, PC Magazine's lead analyst for mobile phones and smart phones, wrote recently.

Beyond the feature set, Segan was also impressed with its performance.

"General performance on the new BlackBerry 8830 was snappy," she wrote. "We didn't experience any



noticeable delays when opening or working in various applications. We were also impressed with the multimedia performance."

BearCom, a nationwide wireless solutions dealer and integrator that offers the Sprint version of the 8830 to its many corporate and professional customers, has witnessed very strong demand for the new smart phone.

John Czapko, Vice President of Sales for BearCom, told *Today's Wireless World* that many businesses and organizations, especially those that do business internationally, are warmly embracing the BlackBerry 8830. "They see tremendous value in having a device that provides for seamless communications from just about every corner of the world," Czapko said. "And when you factor in the corporate reputations of RIM and Sprint, you end up with a first-rate

combination that will reshape the smart phone industry in a very positive way." •

Scott Riddle is Digital Sales Supervisor for BearCom.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.

## The Journey Begins Here. Today. NOW.



# BUSINESS AND INDUSTRY'S LONG-TERM SPECTRUM SOLUTION

New opportunities. New possibilities. New platform. All while preserving your current systems and FCC licenses.

## **NEW F3061 series**

The POWER of digital RF.
The POTENTIAL of RF + IT.

"It's truly the radio of our time," states Chris Lougee, Vice President of Icom's Land Mobile Division. The radios actually create new spectrum for users. The FCC established 500 new 6.25 kHz bandwidth channels that go virtually unused because there has been no equipment available for the industry. Icom delivers the spectrum solution.

- 5 Watts
- 512 Channels
- Powerful Li-ion Battery
- 2-Tone, 5-tone CTCSS, DTCS
- Conventional / LTR® Mode / 6.25 kHz Digital

For more information, contact BearCom: 800.527.1670

www.BearCom.com/icom





#### **INDUSTRY SPOTLIGHT (Retail):**

## **Retail Industry Takes a Wireless Bite Out of Crime**

By Hugh Johnston

More retailers than ever are falling victim to criminal activity, according to a recent survey conducted by the National Retail Federation. But then that's hardly news to the Federation's members. The same survey found that as many as one in 10 are investing more than \$1 million each year on measures to prevent everything from simple shoplifting to organized crime rings.

Mike Tracy, National Retail Account Manager for BearCom, is on the front lines with those retailers, delivering solutions designed to reverse the crime wave. Among the hottest solutions, he noted, are wireless video surveillance systems. These systems are being installed in retail warehouses, where a growing number of thieves are stealing large quantities of merchandise to resell online. "Using Firetide mesh networks and Sony cameras, we're able not only to identify criminal activity, but also deter it," Tracy said. "The cameras can be placed virtually anywhere in the warehouse, which is a significant advantage over wired systems. A retailer also can easily add or subtract cameras at will, depending on its needs. BearCom has had a lot of experience in setting up these systems in other

industries, such as public safety, event management, and education. Retailers are now beginning to recognize the value that such systems can bring to their operations."



The fact that retailers understand that value should surprise no one. Even with the spike in criminal activity in the warehouse setting, the total percentage of losses has stayed relatively flat, a trend that is attributable to wireless technology, according to the Federation. But the biggest benefit from wireless

technology has come on the floor, where shoplifting is being addressed with ultra-light radios from Motorola and Icom. The radios allow employees, typically with headsets, to discreetly communicate suspicious activity.

Charlotte Russe, a clothing store for young women, claims as much as a 40 percent reduction in store merchandise shrinkage through the use of two-way radios. With the ability to communicate instantaneously, store attendants can alert one another if a situation arises. Workers at Banana Republic employ a similar loss-prevention strategy with their radios. The first one to spot a suspicious person quickly alerts all staff by simply saying, "Adrian is here."

A number of large chains—Gap, Wal-Mart, Macy's, and Target, to name a few—now depend on wireless technology to prevent shoplifting. But that is only half the story. As recently as a decade ago, most retailers were mired in antiquated technologies. "Overhead paging systems and employees yelling across the room were standard business practices," said Tracy. "Gap,

Continues on page 10...



# Top Benefits of Wireless in the Retail Industry

- Shrinkage: Some stores claim as much as a 40 percent reduction in store merchandise shrink from the use of two-way radios.
- Efficiency: "Without communications, we would need a lot more staff," said one of the team members at Old Navy. "The average dollar sale of a person who walks out with nothing is zero."
- Customer experience:
   Creating the right shopping experience with customer service automation makes the statement, "We care, and we are here to prove it."
- Professionalism: No more overhead paging systems disrupting customers' shopping experience. "Now team members can discretely call for additional stock or for the answer to a question without interrupting the entire store," a PacSun clerk said.
- Safety: If an emergency arises, it can be communicated instantly throughout the store.

#### ...Continued from page 9

one of the earliest adopters of wireless technology, embraced Motorola radios. This had the immediate benefit of increased sales. The point-of-sale person, for example, could ask someone in a back room whether the product was in stock, instead of having to leave the customer and check inventory. By maintaining contact with the customer, the point-of-sale person was able to keep the customer interested, and in some cases, even upsell them."

Using wireless technology, a retailer's employees can easily turn browsers into buyers. According to a survey conducted by Deloitte & Touche USA LLP, which was presented at the industry's annual retail conference, better wireless communication by employees can fix the main problems that cause consumers to walk out of a store. Out of the 4.000 consumers surveyed, 64 percent said they would leave a store if they could not find an item or if the size they were looking for was out of stock. A floor associate with immediate access to stockroom staff could easily answer this question, potentially creating a sale. Fifty-seven percent would not buy something if the register line was too long, a problem avoided if tellers could quickly call for back-up help. Fifty-two percent would leave if a sales associate was not easily available, a problem fixed with visible customer assistance technology, such as wireless customer call boxes.

Safety is an important added benefit derived from employing advanced communication systems. For example, if an emergency arises, whatever the circumstance, it can be communicated instantly to everyone in the store. Two-way radios can also help retailers by being integrated to receive alerts from emergency exits or traffic flow monitors.

Wireless solution providers, not just the products they provide, can help make the difference in a retail business. JCPenney recently recognized BearCom for being one of its "Outstanding Vendors." A JCPenney spokesperson said, "Two-way radios are a depreciable asset and help to reduce shrink and increase efficiencies. The initial investment has a short-term payback. How well a supplier responds to our many requirements over the life of the radios is really what determines the true cost of conducting business in the retail industry."

Hugh Johnston is Purchasing Manager for BearCom.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.

## The Best Radios for Retail

Performance. Productivity. Value.



For more information, contact BearCom: 800.527.1670 www.BearCom.com/motorola





# Need wireless video surveillance?



**Public Safety • Commercial Security • Transportation • Industrial** 

Do your security initiatives require

- Real-time response to incidents?
- Temporary or remote monitoring?
- Mobile surveillance from vehicles?

Think wireless—Firetide wireless mesh networks. Faster to deploy, cost less, greater flexibility—and real-time video equal in quality to wired!

When safety and security depend on wireless—depend on Firetide!



Reliable connectivity anywhere™



Meg A. Hertz, the Chief Technology Officer for BearCom, provides innovative wireless solutions to BearCom customers every day. But when a communications problem requires superhuman powers, Meg becomes Wireless Woman-and always saves the day!

#### **ASK WIRELESS WOMAN:**

# **Questions and Answers about Pagers and Batteries**

**By Wireless Woman** 

#### Question:

It seems that more and more of my friends are leaving their pagers at home in favor of cell phones. Is this just my imagination, or are pagers disappearing?

#### Answer:

It really depends on where you look. Yes, consumers are increasingly choosing a cell phone over a pager. But in the business world, pagers are as popular as ever. In fact, the medical field, government agencies, and large corporations still depend heavily on paging systems. Although individuals in those industries most likely have cell phones as well, they still rely on pagers, primarily because of their ease of use and reliability.

To find out more, we contacted Don Klabunde, CEO and founder of DX Radio Systems, a company that has been in the paging transmitter industry for more than 15 years. "One important benefit of a paging system is the control it gives to an organization," said Klabunde. "A paging transmitter sends an RF signal to the pager, which has an address. The transmitter has the ability to send a message to one pager or a group of

pagers, depending on who needs to receive the intended message."

Pagers are especially useful in hospitals, whether it is a single message to a doctor or a group message. At hospitals, doctors and nurses are constantly sent messages, alerting them to check on patients, pick up test results, and perform other important duties. These notifications can easily be sent through the transmitter to a specific person or a group of people, depending on the message being sent.

DX Radio recently put its expertise to work when it partnered with BearCom to create a paging system for a large hospital in Dallas. "We took on the project and put our part of the proposal together," Klabunde said. "Then we designed the system, engineered the details, and worked with BearCom to get everything in place."

DX Radio is also currently building the next generation of paging transmitters, which will hit the market in the next year or so. However, in terms of a potential

Continues on page 13...

# The Adventures of Wireless Woman™



#### ...Continued from page 12

replacement for pagers, Klabunde doesn't see the answer in his crystal ball for the future. "There will always be a need for a device that is as simple and reliable as the pager," he said.

#### Question:

I love my two-way radio. But I am frustrated that sometimes my battery loses power just when I need it most. Are there any new technologies I can take advantage of?

#### Answer:

Sure there are. For example, Honeywell Batteries is on the cutting edge when it comes to making batteries for mobile devices that last longer and are lighter in weight. Honeywell has abandoned batteries that rely on the old NiCad technology in favor of Lithium Polymer.

Some users are starting to take notice. "First responders have embraced our technology in a big way," said Scott Benezra, Vice President of Honeywell Batteries. "Those users are looking to extend the productivity of their devices. But because they're such a small segment of the radio manufacturers' customer base, they aren't getting a lot of help from the manufacturers."

Honeywell Batteries, by contrast, is more than happy to help out. In fact, Honeywell didn't even realize the strength of the market until it was approached by the Department of Justice to produce a more efficient battery that could be used in the Motorola XTS 3000 and 5000. "The big issue for the DOJ was weight," said Benezra. "So we began working in close collaboration with the customer. Ultimately, we developed a suite of products to meet its needs."

Some of the solutions included a six-bay rack-mountable charger, a single-bay AC/DC desk charger, and a DC charger that can be plugged into a cigarette lighter. The key with all the chargers, according to Benezra, is that they can support both the legacy batteries and Lithium-powered batteries.

But Honeywell Batteries didn't stop there. "Government agencies typically use a KVL 3000 key variable loader for maintaining encrypted communications. The problem is that the battery that powers the KVL 3000 is underpowered. We came up with an innovative adapter that allows the KVL 3000 to benefit from Lithium technology," said Benezra.

The reality is that manufacturers typically produce products that meet the needs of the majority of their customers. It would be highly inefficient for them to develop products that meet the requirements of specific industries.

But luckily for industries with particular needs, Honeywell is there to help. In fact, the company announced a significant breakthrough in battery performance in August with its new NEOcell Lithium Polymer cells.

In independently monitored laboratory tests, the new NEOcell battery packs successfully reached more than 700 charge cycles while maintaining more than 80 percent of their capacity. This compares to approximately 500 cycles for Lithium Ion cells. The tested battery packs are replacements for the leading OEM two-way radios used by U.S. government agencies. This is an increase in run time and cycle life of approximately 150 percent over the OEM's standard 1650mAh Nickel Cadmium pack.

NEOcell Lithium Polymer cells are safer and more powerful than Lithium lon and can be manufactured in almost any shape. They are especially useful in rugged conditions: the cells can be punctured and still operate safely. Also, they are more environmentally friendly than nickel-based chemistries.

Wireless Woman, a.k.a. Meg A. Hertz, is Chief Technology Officer for BearCom.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.









A variety of wireless devices are employed in the winemaking industry, from two-way radios to smart phones to wireless mesh networks. In some vineyards, the grapevines are actually wired at key areas to measure water transportation rates and sugar content levels in the grapes. That information is then sent wirelessly to a computer, where the data is analyzed to help make better growing and harvesting decisions.

#### **WIRELESS LIFESTYLE (Winemaking):**

## **Taking Some of the Guesswork Out of Winemaking**

By John Czapko

The winemaking industry is infused with all kinds of romantic images, from people crushing the grapes with their feet to a couple celebrating a special moment at dinner over their favorite Merlot. And while the industry embraces those moments as part of the end product's allure, wireless technology is ensuring that the quality of the wine remains high and continues to be affordable to the masses.

Various forms of wireless technology have been used for decades in the industry. For example, Paraiso Vineyards in California began embracing two-way radios in 1975 as its first venture into wireless. "Wireless communication is a very important part of our business, as we span about 60 miles and have 17 different ranches up and down the Salinas Valley," said Jason Smith, Vineyard Manager. "It has allowed us to be in contact with all our key employees at a moment's notice."

Transitioning from radios to push-to-talk phones, the Smith family, which opened its first vineyard in California in 1973 and now has more than 3,000 acres of grapes, relies on Nextel phones to

be in close contact with everyone from irrigators to tractor drivers.

Wireless Internet access has also become a staple in the winemaking industry. Paraiso Vineyards relies heavily on wireless access because of its rural location where hardwiring is simply not feasible. "With so many of our everyday functions, like banking and communication, now being done on the Internet, it would be impossible to operate without wireless technology," Smith said.

Vino Farms, a progressive grape grower headquartered in Lodi, California, uses wireless notebook computers and smart phones in the field, allowing employees to update real-time, accurate information onto the server that connects its main office and seven satellite offices. "During harvest, access to this information is vital," Executive Vice President Kim Ledbetter-Bronson said.

Innovative wireless solution integrators, such as BearCom, can outfit wineries with everything from Sony Wi-Fi cameras to watch the grapes grow to Firetide's wireless mesh network

technology to capture and transmit the data to Icom two-way radios that have access to irrigation system controls. "The proliferation of new and varied technologies has made it a challenge for many of those growers," said Tim Holt, General Manager for BearCom's northern California branch. "There are so many options. And what we have found is that the individual needs of each grower often dictate the most appropriate technologies."

Vino Farms is a good example of this. It uses BlackBerry smart phones with a software application that is specific to the wine industry. The software is equipped with GPS functionality, allowing farmers to visualize and analyze information from a single plant, vine, or tree and interpret what that data means for an entire growing region. "We fully embrace wireless technology when it is efficient, reliable, and cost effective," Vino Farms' Ledbetter-Bronson said. "We have been able to expand our business and now can harvest in at least 15 different locations across seven counties. Logistically speaking,

Continues on page 15...



#### ... Continued from page 14

we wouldn't be able to harvest in this many locations if we didn't have wireless technology to keep all of the trucking companies, wineries, and employees informed at all times."

Paraiso Vineyards also uses wireless technology to constantly collect weather data in the vineyards. "Information is received in the field and then sent to a server to process," Smith said. "That allows us to track degree days to harvest, verify historical data from year to year, and check weather at one ranch compared to another, as well as many other tools that help us in our everyday management of the vineyards."

In the end, however, Smith admits that although wireless tools can be great additions to the day-to-day grape growing process, it is important not to whole-heartedly rely on them. "Wireless technology has made us better farmers

because it has supplied us with several wonderful new tools to add to our old ones," Smith said. "But there is still nothing more important than walking in the vines and experiencing what is really going on. Technology will never replace the actual tasting of a grape or taking a clump of earth in your hand and feeling the moisture and topsoil come together to form what mother nature has given us to make fine wine."

Fortunately, some things about the wine industry will never change. •

John Czapko is Vice President of Sales for BearCom.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.



Two-way radios, provided by BearCom, have become invaluable to the vintner in the wine production process. Knowing what remains on the vines at the point of harvest has a bearing on the activities of the winemaker, who is often some distance from the vineyards, saving time and money as the grapes go from the crushing process to juice and into the barrel.

## **T5 RADIO DISPATCH CONSOLE**

# **Intelligent Radio Dispatch Control**

The T5 Dispatch Console offering from Positron Public Safety Systems provides a robust platform that meets current requirements and provides a growth path to new and emerging technologies. Based on a fault tolerant architecture, the T5 provides leading edge capabilities for both telephony and radio communications. In short, the T5 is designed to meet the needs of dispatch centers today and into the future.

#### **Key Benefits**

#### Greater dispatch productivity

Consolidated control of all system resources (alarm, paging, doors, lights, cameras, and more)

#### **Interoperability**

Intuitive user interface combines various radio frequencies onto one platform

#### **System cost efficiencies**

Centralized command and control functions eliminate the need for independent radio and telephony systems

#### Built-in Soft phone feature with user-friendly interface



# More than just a Radio Console...

The demands on today's dispatch centers are substantial. Whether handling incoming telephone calls or communicating with individual users through their radios, the dispatcher must have complete control of multiple forms of communications. At the core of any well managed dispatch center is a command system that is fully featured, always available and easy to use.

info@positron911.com 1-800-443-3313

#### **SUCCESS STORY (City of Grandview Heights, Ohio):**

# Installing a New Dispatching Technology for a Police Department

**By Kristin Kirkham** 

#### The Customer

The City of Grandview Heights is located outside of Columbus, Ohio. The Grandview Heights Police Department consists of four sergeants and 13 officers, who patrol an area of 2.2 square miles with approximately 7,500 residents. The Grandview Heights PD's dispatch responsibility covers both the police and fire departments, as well as EMS. The Grandview Heights PD also assists patrols in a bordering town, the Village of Marble Cliff, which has more than 600 residents.

#### The Challenge

In the late 1990s, financial restraints had kept the Grandview Heights PD from upgrading its emergency dispatch console, and acquiring newer technology just wasn't a high priority. But soon after the 9/11 disaster, the Grandview Heights PD realized that its vintage-1980s system would no longer be sufficient. In order for the department to meet interoperability standards, a new console would have to be purchased. Since BearCom had been supplying two-way radios to the City of Grandview Heights for a number of years, the Grandview Heights PD turned to the wireless dealer and integrator for guidance.

#### The Solution

Over a period of several weeks, BearCom worked with the Grandview Heights PD to narrow the requirements to a user-friendly dispatch console with better clarity, seamless migration, and maximum up-time with a fault-tolerant architecture and self-healing ability. BearCom then proposed the appropriate radio console from Positron Public Safety Systems, a division of IPC that specializes in industry-leading public safety systems solutions. It was a perfect fit for the Grandview Heights PD's needs, and the cost was lower than city officials had expected. In addition, the system is easily upgradeable as future

needs expand. And the city is no longer concerned that its dispatching system will fail when it is needed most.

#### The Results

The installation and transition process went smoothly, with zero downtime during the switchover. BearCom also trained the Grandview Heights PD employees, who were able to learn the

"We have been very
happy with the people
at BearCom and will
continue to partner with
them on future projects."

#### **Rollin Kiser**

Chief of Police City of Grandview Heights



system quickly. Not only does the new Positron radio console continue to save the city money, it has also provided the Grandview Heights PD with a state-of-the-art communications solution that has exceeded all expectations. "For a very reasonable amount of money, we received a high-quality console that works well," said Police Chief Rollin Kiser. "We have been very happy with the people at BearCom and will continue to partner with them on future projects."

Kristin Kirkham is Marketing & Technical Writer for BearCom.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.

GHPD is firmly committed to providing high-quality law enforcement services to all of the people of Grandview Heights and to strengthening the relationship between the community and the police. The department works to establish coalitions and successfully develop comprehensive solutions to various community problems that help combat crime and improve the quality of life for citizens.

#### **AROUND THE WORLD:**

## **Wireless News and Views**

By Holt Hackney

#### Sony's Video Cameras Impact Society as Well as the Bottom Line

Small but powerful, Sony Electronics' video surveillance cameras are about to change the world. While that statement may border on grandiose, how else would you describe the impact the cameras are already having worldwide by saving lives and money?

An example is how the cameras are being deployed as a vital cog in a solution provided to the Dallas Police Department. Sony partner BearCom selected the state-of-the-art cameras to deploy on the city's streets as part of an overall solution to help combat crime. The cameras help save lives by identifying criminal activity so that the police force can respond to problems in a timely manner. They also save money because the department does not have to staff up when the budget is tight.

"Sony's cameras are a vital element of the overall solution," said Mike Butler, a member of BearCom's engineering and project management team. "We needed cameras that were both durable and reliable." Not surprisingly, those two important characteristics and a myriad of others are being appreciated in other industries, such as education and transportation.

Schools use the cameras to monitor activity on campus, giving officials surveillance capabilities in an era when the presence of unapproved visitors can have grave consequences. And while lives may be not be directly impacted in the transportation industry, the use of surveillance cameras can heighten the responsibility of motorists, who ordinarily might consider driving through a toll booth, for example, without paying the requisite fee.

"This is truly a plug-and-play device, which has contributed to the warm reception it has received in the business community and from governmental agencies," said Sean Matsuoka, a marketing director at Sony. "Our customers have also recognized and appreciated the analytics, which is what separates the camera from others on the market. Sony cameras, for example, have the ability to trigger an alarm when a particular object comes into view."

# Interoperability: It's Not Just for Public Safety Anymore

Interoperability is traditionally thought of in the context of public safety communications, connecting police and fire departments and state and federal agencies. But communications disconnects also often occur within enterprises, which calls for technology that aids interoperability.

Exactly why would a company need interoperability? Merged companies may end up with multiple radio systems using different proprietary two-way radio technologies, systems operating in different bands (150 MHz, 450 MHz, 800 MHz, or 900 MHz), and similar radio systems that are not designed to be networked. The result can be inefficiency that stops workflow and creates a liability in case of emergency.

Interoperability technology providers like Raytheon JPS recognize those issues and have moved quickly to make more advanced solutions available to enterprises to help increase their productivity and the safety of their operations. Raytheon JPS offers local, regional, state, and wide-area interoperability by directly connecting or networking any of the following devices: high, ultra-high, and very high frequency radios, along with Nextel, satellite communication, cellular, WiFi, and digital land line telephones.

# Firetide Enhances HotView Software Offerings

Firetide, a leading developer of wireless mesh and access networks, announced in August several new enhancements to its HotView mesh management software and HotView Controller mobility software. These improvements will further enable large-scale wireless access and mobility deployments for Firetide's customers, while reducing the cost and complexity of deploying metrowide networks.

Firetide products handle concurrent video, voice, and data applications to support video surveillance, Internet access, and temporary networks wherever rapid deployment, mobility, and ease of installation are required. Firetide modular backhaul, access, and customer premises products offer unmatched benefits including:

- Superior video performance: providing up to 70 Mbps throughput for real-time video streaming equal in quality to wired networks.
- Unmatched network scalability: supporting up to 1,000 nodes per network for the most costeffective network expandability and management available. Firetide's Ethernet-based approach allows for easy integration with wired networks.
- Customer-driven modularity: offering a modular backhaul and access design, broadest range of radio band support, and seamless indoor/ outdoor operation.
- Iron-clad security: providing multiple levels of security, including end-toend encryption.
- Uninterrupted mobility: offering roaming without interruption. The Firetide approach allows for realtime video and high-quality voice on moving vehicles with Wi-Fi mobility.
- Unrivaled voice quality: enabling VoIP without dead air or voice quality restricted by network performance.

Holt Hackney is Managing Editor for Today's Wireless World magazine.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.

#### **CALENDAR:**

## **Upcoming Wireless Industry Events**

**By Elizabeth Love** 

#### **Mobile Web Americas**

Orlando, Florida October 2-4, 2007 www.mobilewebexpo.com

#### **Symbian Smartphone Show**

London, England October 16-17, 2007 www.symbiansmartphoneshow.com

# IEEE International Symposium on Wireless Communications

Trondheim, Norway October 17-19, 2007 www.iswcs.org/iswcs2007

#### **Mobile Business Expo 2007**

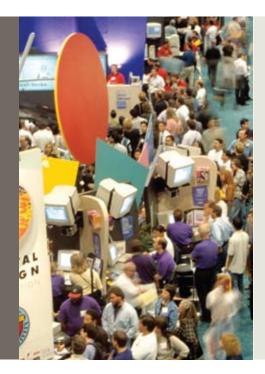
New York City, New York October 22-25, 2007 www.mobilebusinessexpo.com

# CTIA Wireless I.T. & Entertainment

San Francisco, California October 23-25, 2007 www.wirelessit.com

#### **Enterprise Wireless 2007**

San Antonio, Texas
October 25-26, 2007
www.enterprisewireless.org/events/events.htm

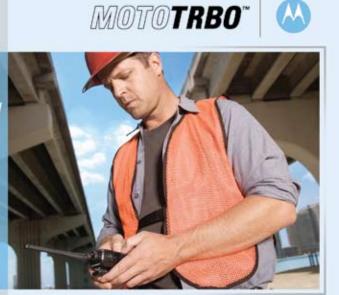


## MOTOTRBO System

Performance. Productivity. Value.



Shift into digital and accelerate performance.



For more information, contact BearCom: 800.527.1670

www.BearCom.com/motorola



- Trusted by Fortune 500 Companies
  - Relied Upon by Homeland Security
    - Exceeds OEM Standards



Honeywell® Batteries offers a full line of premium replacement batteries and high-performance chargers for Motorola and Icom two-way radios and Nextel phones.

For more information, contact BearCom: 800.527.1670 www.BearCom.com/honeywell-batteries



#### **FINAL WORD:**

## **Education's Role in the Growth of Wireless Technology**

By Mark Kroh

Whether it's an NFL football coach communicating with his staff through his state-of-the-art headset or a firefighter relaying her position within a burning building, wireless technology is being embraced in our world like never before. And yet, every day, money is wasted and lives are lost as we cling to our outdated technology.

What explains this failure to embrace a more modern approach? Quite simply, it's education. There are so many choices for the business consumer in terms of wireless technology that it has become increasingly difficult to articulate what products and services are appropriate for each company's given situation. This is where the solution providers, channel partners, and resellers are so important. It is the responsibility of wireless industry leaders like Motorola to work with all of these partners, so they can better communicate the appropriate solutions.

Along those lines, we recently announced a value-added reseller channel program for our wireless broadband solutions in North America. As part of the program, we offered market development support and comprehensive technical training. This wireless broadband solutions program incorporates many features designed to give our channel partners a quick rampup in this fast-paced market.

It is essential that we, as well as our competitors, make sure that all of our partners have all the tools to enable them to communicate with the business user, whether they come from the public safety, enterprise, or commercial sector. These companies should understand the different applications and technologies as well as their corresponding benefit. One of the future challenges is the accelerating rate of development of newer, more sophisticated technologies. The smart phones of five years ago, for example, are nothing like they are today. And the pace of change will only continue, putting the onus back on education.

A classic example of newer technology from Motorola is MOTOTRBO, a new platform that combines the best in two-way radio with digital technology to deliver improved capacity, higher productivity, lower costs, faster response times, and improved reliability. The challenge is to communicate those benefits to the customers who need them most.

If we as an industry can work closely together to successfully introduce new technologies, then we can meet an objective that has become very important to us here at Motorola—seamless mobility. Seamless mobility represents our vision of a new world in which wireless users are mobile, informed, entertained, secured, connected, and empowered. This is a world where users have the power to personalize and control how, when, and with whom they want to communicate.

Motorola's solutions and services are designed to help businesses and organizations realize the full potential of seamless mobility. And yet that potential will never be met unless we all do our part to educate the users.

Mark Kroh is Vice President of Sales & Sevices for Motorola.

For more information about the wireless products discussed in this article, please contact BearCom at TodaysWirelessWorld@BearCom.com.

# Warning: This Ad Contains Strong Language.









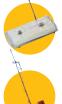












In the wireless communications industry, BearCom has always had a strong reputation. We've been going **strong** for more than 26 years, but now we're sending an even stronger signal than before.

BearCom is committed to **strong** customer service, has stronger relationships with the leading manufacturers of wireless equipment, and has the strongest wireless product line in the world. If that weren't enough, we also have some of the **strongest** minds in the

business, and our wireless experts number more than 400 strong. Simply put, we're strong medicine for all your wireless communications needs.

We think we've made a **strong** statement with this ad, but if you're still not convinced, contact BearCom today. We'll show you firsthand how we can help you build a stronger foundation for your wireless communications system. And we promise not to mention the word **strong** when you call.





ATLANTA, GA 800.417.6272 **AUSTIN, TX** 800.541.9333 **BOSTON, MA** 

877.301.2327 **CHANTILLY, VA** 

800.955.0003 CHICAGO, IL 800.900.2327

COLUMBUS, OH 800 782 5458

COSTA MESA, CA 800.513.2660

For More Information, Contact BearCom: Or Visit One of Our 26 Branch Offices

**DALLAS, TX** 800.449.6171

**DENVER. CO** 877.312.2327

**DETROIT, MI** 877.475.2327

FT. LAUDERDALE, FL 800.731.2327

HOUSTON, TX 800.856.2022

LAS VEGAS, NV

800 535 2489

**LOS ANGELES, CA** 800.546.2327

**NASHVILLE, TN** 877.454.2327

**NEW YORK, NY & NJ** 

888.841.3600

**ORLANDO, FL** 877.640.2327

PHILADELPHIA, PA 877.319.2327

**PORTLAND, OR** 888.371.2327

RIVERSIDE, CA 800 314 2327

**SACRAMENTO, CA** 866.612.2330



SAN DIEGO, CA 877.706.2327

SAN FRANCISCO, CA 800.953.2327

**SEATTLE, WA** 800.313.2327

ST. PAUL, MN 877.650.2327

WASHINGTON, DC 877.895.2327

**Buy** >))

Rent ())

Service >))

**26** Branches Nationwide ))

## **ACU-2000 IP**



When the situation is critical, your team needs integrated voice, data, and multimedia communications in conjunction with seamless interoperability. Only the new ACU-2000 IP from JPS provides a true SIP-based gateway to digitally converge existing radio systems with SIP telephones, networks, and devices. Now you can bring all of the advantages of the open-standards SIP protocol to your radio systems and add radio functionality to your network. Visit our website to learn how the ACU-2000 IP from JPS can integrate your communications.

www.raytheon.com/jps



Customer Success Is Our Mission