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Special Manufacturing Issue



***Manufacturers Resolve Problems
and Enhance Productivity with
Digital Wireless Technology***

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Dear Manufacturer:

The landscape is changing for manufacturers, thanks in part to new technologies from Motorola, and we at BearCom are excited to be a part of it.

Motorola's flagship wireless platform—the MOTOTRBO digital two-way radio system—can be deployed in virtually any manufacturing setting to produce extraordinary productivity gains.

There are a number of reasons for this adaptability.

First, Motorola has been very responsive to customer feedback from manufacturers around the country, making the kind of technology changes and improvements that impact your business the most.

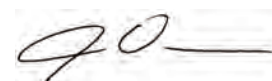
Second, MOTOTRBO boasts the largest application developer program in the two-way radio industry. Motorola's decision to invite all developers to create industry-specific applications has enabled manufacturers and other businesses to become more cost-efficient at a time when global competition has heated up.

Third, Motorola has embraced strategic partners, like its largest reseller and integrator in the world: BearCom. We at BearCom have worked closely with Motorola to deliver the kind of devices that can make a real difference in a manufacturer's bottom line, as well as the safety of its employees.

Then there are the custom deployments and enhancements of the MOTOTRBO system. With Motorola IP Site Connect, for example, BearCom extends wireless communications across physical barriers and/or other impediments that ordinarily block such communications. IP Site Connect accomplishes this by linking up to 15 repeaters at a single site or across multiple locations. This leads to uninterrupted voice and data communications, even among MOTOTRBO users who are utilizing different wireless frequency bands.

Motorola Capacity Plus has been another boon to the industry, giving manufacturers the ability to divide frequencies into two time slots, and thus doubling the number of users on the system with limited risk of interference. And with Capacity Plus, there's no need to purchase additional repeaters, which keeps costs at a minimum.

We hope you enjoy this special manufacturing issue of *Today's Wireless World* magazine. Please let us know how we can assist you with your wireless communications needs.



Jerry Denham
President & CEO
BearCom



MOTOTRBO's Transmit Interrupt Suite—with voice interrupt, emergency voice interrupt, and data over voice interrupt—enables employees to prioritize critical communication the moment they need it. Motorola has enabled text messaging on the MOTOTRBO portables, which provides employees with the ability to transmit information between radios, between radios and dispatch systems, and between radios and e-mail-capable devices.



MANUFACTURING INDUSTRY OVERVIEW:

Manufacturers Resolve Problems and Enhance Productivity with Digital Wireless Technology

By Holt Hackney

When it comes to business and commercial insurance, today there are a plethora of options for the manufacturing company, from general liability to commercial property to product liability.

Such enterprises are keenly aware of these kinds of policies and their value to the business. But there's one kind of insurance policy, not mentioned above, that very often touches a nerve of virtually every manufacturing executive across the country—equipment breakdown insurance.

One global insurance company, Zurich, recently put the inevitable this way: "No matter how sophisticated and well-maintained a piece of machinery or equipment may be, it can fail. And the reality is that an unplanned shutdown can be devastating to your business."

And while recapturing some of the revenue lost in a shutdown through insurance may be important, it is just as critical to immediately identify and report a breakdown and quickly get the equipment back online.

"Equipment problems are one of a manufacturer's worst nightmares," said Brad Heath, the founder and CEO of VirTex Assembly Services, a contract manufacturer in Austin, Texas. "In a globally competitive marketplace, the more we can reduce delays and stay on our production schedule, the better chance we have of keeping our customers happy and retaining them for future business." This is just one area where state-of-the-art wireless technology, like the Motorola MOTOTRBO digital two-way radio system from BearCom, is making a difference in the manufacturer's bottom line—and ultimately the lives of many of its employees.

MOTOTRBO—along with its various complimentary Motorola devices, independently produced software applications, and solution-oriented partners—is rapidly becoming the manufacturers' best friend by generating a host of benefits.

Among the most important is serving as the ideal bridge from analog to digital.

"Analog two-way radios have been the industry norm for many years and are used in countless installations around the world," said Hugh Johnston, Product & Purchasing Manager at BearCom. "But Motorola's MOTOTRBO digital platform from BearCom offers the best of both worlds for the manufacturer, given that it is compatible with current analog technology and also has the capability to transition to a digital system as the needs of the manufacturer dictate."

The pace of that transition may speed up once the manufacturer gets a taste of the MOTOTRBO edge.

One of those advantages centers on MOTOTRBO's clear, crisp voice communications. Using digital radios aligned with MOTOTRBO, such as the XPR3000 and XPR7000 Series portables, employees experience an extended range from what they had with the antiquated analog radios. That means no more distracting static when employees communicate on their radios

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A HIGHER LEVEL OF PERFORMANCE FOR EVERYONE ON YOUR TEAM.

Nothing keeps your employees running at full speed better than a digital two-way radio system from Motorola. The durable MOTOTRBO system delivers enhanced voice quality and a 40% longer battery life, to ensure clearer communication across shifts, even in the loudest parts of your coverage area. And with no per-call or monthly fees, MOTOTRBO is a great fit for your staff as well as your bottom line. It's just another way Motorola puts seamless mobility in the palm of your hand. **HELLOMOTO™**

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To learn more about how Motorola MOTOTRBO™ digital two-way radios can help keep you communicating clearly, call BearCom at 800.527.1670 or visit www.BearCom.com/Manufacturing.



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from remote areas of the plant.

Secondly, MOTOTRBO's background noise suppression and Intelligent Audio features help ensure communication comes through loud and clear. And Intelligent Audio automatically adjusts the radio volume up as necessary, so employees can clearly hear in the noisiest of environments, and then down in a quieter setting.

Since introducing MOTOTRBO almost a decade ago, Motorola has improved the technology and the devices that utilize it in other ways as well. Using advanced TDMA digital technology, for example, means the MOTOTRBO devices operate up to 40 percent longer between recharges compared to typical analog or FDMA digital two-way radios from other manufacturers.

The company has taken it to another level by introducing its leading-edge IMPRES "smart energy" technology. The function of charging batteries has become an automated process, extending battery life on the radios to 12 hours. Extending work shifts is now possible without interruption.

TDMA digital technology also offers another benefit, enabling two virtual channels within a single 12.5 kHz licensed repeater channel—double the capacity of analog. Without having to buy a second repeater, the savings go straight to the bottom line.

Monitoring Equipment Made Easy Using MOTOTRBO

The texting functionality can be coordinated so that maintenance technicians can receive text-based alerts from automation and control systems to better monitor line equipment status. These alerts can be set to provide immediate notification to a technician's radio to help minimize equipment downtime.

With system features such as IP Site Connect (discussed below), data and voice communication can be effectively extended throughout large facilities, or even across remote locations via the

Internet to keep workers connected, productive, and safe.

The GPS functionality embedded in MOTOTRBO is another popular feature, giving managers the ability to track the location of a truck en route to the facility. This is critical since the manager can then view where inbound materials are and determine expected arrival times to prepare the receiving department. The manager can also check the status of deliveries to outbound locations, ensuring accuracy and timeliness.

What has made MOTOTRBO the emerging standard of the manufacturing industry is Motorola's dual commitment to the portable devices that leverage the technology.

Start with the fact that they are rugged, meeting the most demanding specifications, including IP57 for submersibility in water and U.S. Military 810 C, D, E and F. While protecting the hardware is important, the safety of the workforce is paramount, which is why the devices have been made "intrinsically safe" for locations where flammable gas, vapors, or combustible dust may be present.

These devices are also versatile. The XPR7000 Series of professional-tier radios are available in both full keypad with color display and non-display models. Building on its highly successful XPR6000 Series portable line, Motorola offers additional enhancements to its XPR7550 by providing a five-line color display that enables easy reading of menus and text messages. An innovative day/night-mode feature changes the screen and illuminates icons for enhanced clarity in the darkest and brightest environments.

Software Applications and Game-Changing Solutions for Manufacturers

If the MOTOTRBO technology and the functionality and features of the devices are half of the winning formula for the manufacturer industry, the other half is the industry-specific software applications and the emergence of

Motorola partners that deploy game-changing solutions.

When Motorola first introduced MOTOTRBO, it made a strategic decision that has touched every corner of Corporate America. It introduced an application developer program that would be open, allowing entrepreneurial businesses to collaborate and create solutions that are specific to industries, such as the manufacturing community.

Today, the company supports the industry's largest portfolio of data applications, including work order ticket management, e-mail, emergency man-down alarms, dispatch, and telephony to further enhance user safety, efficiency, and work flow for enterprise-critical employees and managers.

In the manufacturing setting, where two-way radio communication systems can face a number of logistical and operational hurdles, exacerbated by the presence of buildings or metal structures, communication between employees can break down. IP Site Connect resolves this problem by creating a continuous umbrella-like coverage. With as many as 15 repeaters strategically deployed, manufacturers can ensure uninterrupted voice and data communications. Of major significance is the fact that it can automatically connect MOTOTRBO users that are utilizing different frequency bands, broadening the scope of the manufacturer's two-way communication capabilities.

"Over the years, IP Site Connect has introduced tremendous efficiencies in the manufacturing community by expanding the benefits of its MOTOTRBO two-way radio system," said John Czapko, Vice President of Sales at BearCom. "Whether they're on the plant floor, unloading cargo at the dock, or delivering finished goods, IP Site Connect helps streamline staff communication."

Capacity Plus has been another boon in the manufacturing sector. When

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Wireless Landscape for Manufacturing

Maintenance and Repair

With MOTOTRBO in place, the manufacturer can respond quickly to any problems with its equipment, dispatching team members to make needed repairs and get the production line back up and running as quickly as possible.

Warehouse

Warehouses can be huge, noisy places. Motorola recognized this and made sure that its MOTOTRBO digital radios offer extended range and very high-quality audio, especially with regard to suppressing the kind of background noise that is a common occurrence on the warehouse floor.

Shipping and Receiving

Efficiency is a welcome by-product of the MOTOTRBO digital two-way radio system. Employees on the loading dock now have the ability to track the departure and arrival of shipments by utilizing the GPS feature on their device.

Production

Equipment on the production line breaks. Once that happens, downtime translates into declining profits. MOTOTRBO squeezes downtime, because the employee on the line can notify others at the facility, significantly speeding up the repair of the equipment.

Front Office

Managers and administrators in the front office can reach almost anyone on the campus, thanks to MOTOTRBO and its many application development partners, such as Teldio, which gives them the ability to reach employees on their radios from any phone, anywhere, anytime.

Did You Know?

Motorola IP Site Connect enables users to communicate via voice and data over a much wider coverage area, providing manufacturers with continuous umbrella-like coverage, in spite of logistical and operational hurdles that can be exacerbated by the presence of buildings or metal structures. Just as importantly, IP Site Connect automatically connects MOTOTRBO users who are utilizing different frequency bands, broadening the scope of the manufacturer's two-way communication capabilities.

FEATURED TOOLS FOR MANUFACTURING: Motorola MOTOTRBO Two-Way Radios, Apps, and Accessories

Motorola is known for producing reliable, rugged wireless devices. This reputation is complimented by the presence of strong solution integrators and partners, such as BearCom, who have demonstrated a commitment to making sure manufacturers get the most out of their equipment.



Motorola XPR7550 Portable

- Channels: 1000
- Power: 5W (VHF), 4W (UHF)
- Size, weight: 5.13"H x 2.17"W x 1.62"D, 12.89 oz.
- Included: Five-line color display, SMS capabilities, battery, charger, carry holder



Motorola XPR6550 Portable

- Channels: 1,000
- Power: 5W (VHF), 4W (UHF)
- 5.18"H x 2.5"W x 1.39"D, 12.7 oz.
- Li-Ion battery, charger, antenna, belt clip, user and installation guide CD kit, GPS capabilities
- Optional: intrinsically safe



Motorola XPR6350 Portable

- Channels: 32
- Power: 5W (VHF), 4W (UHF)
- Size, weight: 5.18"H x 2.5"W x 1.39"D, 11.63 oz.
- Included: Li-Ion battery, charger, antenna, belt clip, user and installation guide CD kit, GPS capabilities
- Optional: intrinsically safe



Motorola XPR3500 Portable

- Channels: 128
- Power: 5W (VHF), 4W (UHF)
- Size, weight: 2.0"H x 7.0"W x 8.6"D, 7.0 lbs.
- Included: battery, single-unit charger, antenna, belt clip, user and installation guide CD kit



Motorola XPR5550 Mobile

- Channels: 1000
- Power: 25-45W (VHF), 25-40W (UHF)
- Size, weight: 2.1"H x 6.9"W x 8.1"D, 3.9 lbs.
- Included: mounting brackets, 10-foot power cable, compact microphone, bluetooth, replacement button kit, user/installation guide CD kit, GPS capabilities



TurboVUI Apps by CTI Products

- TurboVUI will connect your entire manufacturing facility
- Connect two-way radios with Apple and Android products
- GPS maps with geo-fences to track products
- Group or private calls
- Text messaging



Motorola XPR8400 Repeater

- Power: 45W (VHF), 40W (UHF)
- 100% duty cycle
- Digital or conventional analog programmable
- Size, weight: 5.22"H x 19"W x 11.67"D, 31 lbs.
- Included: 120V AC power cord, installation guide



Motorola MTR3000 Repeater

- Power: 1-25W (VHF & UHF low power) 25-45W (VHF high power) 25-40W (UHF high power)
- 100% duty cycle
- Digital or conventional analog programmable
- Size, weight: 5.22"H x 19"W x 11.67"D, 31 lbs.
- Base or repeater operation



Motorola Speaker- Microphones

- Compact design
- Windporting feature dramatically lessens noise caused by high winds and other severe weather conditions
- Noise-cancelling acoustics
- Omni-directional microphones
- 3.5 mm unthreaded audio jack on mic head



Motorola Headsets

- Noise-cancelling with clear and crisp audio
- Highest quality in the market
- Invaluable in manufacturing environments
- Heavy and medium-duty models available



Motorola Batteries

- High-quality batteries
- NiMH and Li-Ion chemistries available
- Longer battery life with high-capacity models
- Ask about intrinsically safe and submersible options



Motorola Carry Cases

- Leather and nylon carry cases
- Protect your radio in rugged environments
- Keep your radio easily accessible at all times
- Swivel belt clip options available



Apps by Teldio

- Complete line of MOTOTRBO applications for manufacturing
- Equipment monitoring and alarm management and notification
- Work ticket management
- Two-way radio-to-phone integration
- Lone worker protection
- Indoor positioning
- GPS / AVL tracking



zapMail App by NeoTerra Systems

- E-mail-to-text gateway
- Uses standard SMTP and POP services
- Easy to configure
- Store and forward text messages
- Text clients for distributed messaging within a user network
- Customized solutions for larger manufacturing organizations





MOTOTRBO is a win-win for the manufacturer, since it is compatible with current analog technology, yet holds out the promise of a transition to a digital system and all the efficiencies that come with it.

...Continued from page 5

deployed, the manufacturer can divide its frequencies into two time slots, enabling more than a thousand radio users to quickly and efficiently share business-critical voice and data communication on the same system. As employees handle inventory or move equipment through the plant, they are all connected through one single site.

Finally, there's Connect Plus, a scalable, multi-site digital trunking solution that helps keep your entire workforce connected. Once deployed, Connect Plus requires that calls be queued during busy times until an open channel is available. Important users can be assigned priority

status when the system is in high demand, and a wire-line console can be used for centralized dispatch.

"Taken together, these four strengths of MOTOTRBO are continuing to revolutionize the industry, one manufacturer at a time," said Czapko. "Wireless technology like this has become even more important, given the increasing global competition, tighter schedules, longer shifts, and heightened emphasis on safety in the workplace. BearCom is excited to be a part of this powerful change, and our team stands ready to help manufacturers make the most from these new technologies." ●

MANUFACTURING SUCCESS STORY: Georgia Nut Company

By Nicki Nielsen

The Customer

Georgia Nut Company (GNC) is a privately held company that was founded in 1945. Based in Illinois, it employs 350 people at two locations. The first building is a 130,000-square-foot manufacturing facility in Skokie, which employs a combination of state-of-the-art equipment and the old-fashioned small batch methods. The second building, a 180,000-square-foot distribution center located in Niles, serves as a warehouse for storing and shipping GNC's wide variety of nuts and other edible products.

The Challenge

Like other companies that count on the timely utilization of perishable raw materials, reliable communications is essential at GNC. "I think it is really important with multiple locations that our employees be able to communicate with one another immediately," said Rick Dreho, CEO of GNC. The company was also hampered by the fact that with a single two-way radio repeater, employees also couldn't communicate with one another if they weren't in the same facility. "With the old system, we weren't able to get the job done as efficiently as we would have liked," Dreho added.

The Solution

Recognizing this, GNC's management sought and found a digital two-way radio solution that could blanket all of its properties and provide for a connection that was reliable and clear. That solution was the Motorola MOTOTRBO platform with IP Site Connect.

The Results

GNC has been pleased with its system, which supports continuous voice and integrated data communications among all personnel. With a push of the button, MOTOTRBO and IP Site Connect created access across the factory floor as well as anywhere in the country. Just as importantly, it enabled just-in-time product manufacturing and delivery and provides employees with the ability

to roam without manually changing channels. This has "dramatically improved our communication and productivity," said Dreho. The new digital system also has helped ensure uninterrupted communication at GNC with features such as dual-mode analog and/or digital scan and enhanced call management. Employees on the floor, such as J.R. Vasquez, a dispatcher for GNC, have been pleased with the deployment as well. "This product is very clear," he said. "We have had very good communications between dispatcher,

"We have had very good communications between dispatcher, mechanics, and production. Overall, it makes us a much more efficient company."

J.R. Vasquez
Dispatcher
Georgia Nut Company



mechanics, and production. Overall, this technology makes us a much more efficient company."

"MOTOTRBO and IP Site Connect definitely bring value to the table," said BearCom's President & CEO, Jerry Denham. "With every early adopter that realizes the effectiveness of this technology, like Georgia Nut Company, more smart, innovative manufacturers will follow. It offers too much of a competitive advantage for manufacturers to sit idly by on the sidelines." ●

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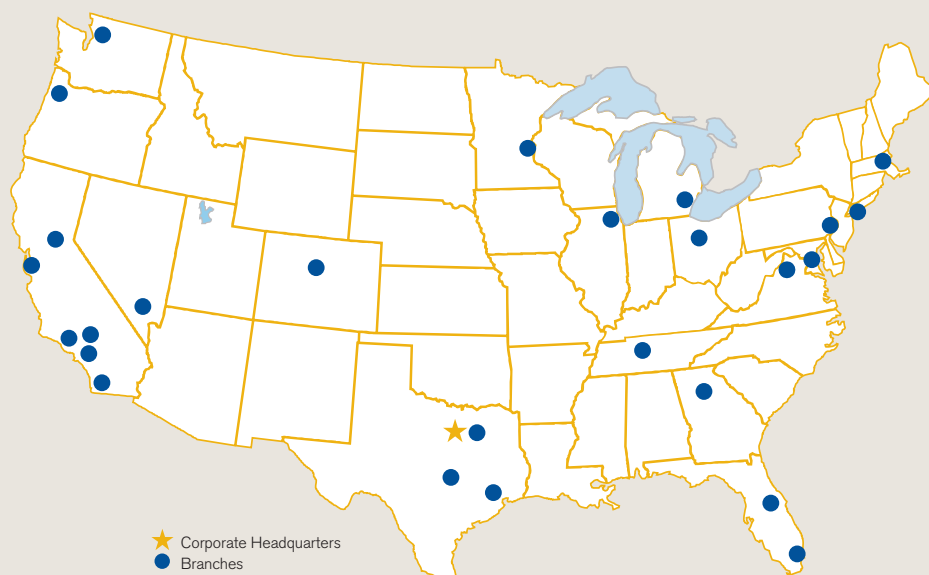
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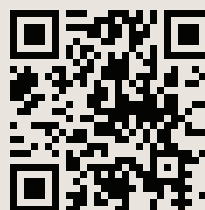
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