

Burris Turns Up the Heat on Cold-Storage Data Collection

CASE STUDY

BURRIS, a leading temperature-controlled logistics provider, wanted a radio frequency network that worked everywhere - in its offices, in its refrigerated warehouses, at shipping docks, and in freezers, where the temperature is 20 degrees below zero. They also wanted any wireless device, from industrial portable terminals to notebook computers to WiFi-enabled cell phones, to operate well in those areas.



Burris recognized their freezer environment would hold real challenges for RF equipment. Freezer walls are heavily insulated and lined with stainless steel, which can cause multipathing, the phenomenon that occurs when radio signals bounce off obstacles and arrive at the receiver at slightly different times, causing the receiver to fail to pick up either signal. And computer equipment passing in and out of cold areas can build up moisture, causing screens to fog up, keyboards to seize up, and internal parts to corrode - reducing operator productivity levels and increasing operator frustrations and equipment repair costs.

The Road to 802.11b

Milford, Delaware-based Burris had already faced just those sorts of problems with a 900Mhz network and equipment installed five years ago. "We had frost getting in to the terminals, and coverage issues," says Ed Krupka, president of Burris Information Technology, the company division that addresses IT needs. "We were not getting the coverage we thought we should even after following the recommendations of site surveys, and we had interference problems. A lot of issues started to stack up."

So three years ago, Burris began upgrading networks in its 15 warehouses to a Cisco 802.11b compliant network backbone and deployed handheld and vehicle-mount terminals from LXE, provided by LXE partner Open Road Technologies, Columbia, Md.

"We recognized that 802.11b would give us commonality to a lot of different devices," says Krupka. "That makes it extremely flexible." To accommodate the harsh setting, access points were surrounded by NEMA boxes to keep them warm. Use of 802.11b also opens the door for future use of RFID, which often interferes with 900Mhz RF.

"We also needed more reliable hardware for our harsh environment," Krupka continues. After thorough testing, they chose LXE MX1 handheld computers and VX1 and VX6 vehicle-mount computers.

"The LXE computers met our criteria," Krupka says. "They're industrial strength, and they hold up well in the freezer environment in which we operate." They also incorporate a keyboard that can accommodate gloved hands and long-range scanners, ideal for Burris' large warehouses, with faster decode speeds that help improve productivity. Despite the extra processing power, the terminals are engineered to maximize battery life and easily cover Burris' 8- to 10-hour shifts. "To my knowledge LXE's battery life exceeds its competitors," he adds.

LXE's Spire Antenna, based on technology originally developed for space applications, reduces the problems associated with RF multipathing.

LXE's RF Term provides an upgrade path for Burris enabling Burris to operate its current green screen application on their Windows CE .NET based VX6. As they migrate their applications to Windows, there will be no need to swap-out hardware.

Real-Fast, Real-Time Service

"We're also very pleased with the support," Krupka adds. "We put a call into our local VAR and they're on the phone in a few minutes or sitting in our office. They're interested in solving our problem."

The Road Ahead

So far, Burris has 10 warehouses converted to 802.11b, with at least three more planned for the upgrades. Burris runs its own in-house developed enterprise resource planning and warehouse manage-

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ment system application, and installed the Cisco network using in-house staff. Warehouses and offices are linked via a redundant wide area network.

Over the past few months Burris has been upgrading and reengineering some warehouse applications to increase its use of voice technology. Because applications such as picking still require scanning, Burris is considering running voice on its LXE hand-helds in addition to dedicated voice hardware.

The Results

Even before the new applications, the faster, more reliable hardware and 802.11b-compliant network are already paying dividends for Burris' business.

"I believe we're providing better quality of service with real-time data collection, says Krupka. "When transactions are complete we are able to integrate data real-time into the warehouse management system and make it immediately available to customers via Web applications," enhancing customer satisfaction and Burris' competitive strength.

For more info on Burris Logistics go to www.burris-logistics.com.

PARTNER HIGHLIGHTS



Open Road Technologies, headquartered in Columbia, Maryland, is a systems integrator of barcode, mobile and wireless computing solutions and custom software applications. Open Road focuses on sales force and field automation solutions that improve productivity and the transfer of information through mobile and wireless technologies. To meet the requirements of a rapidly changing environment, Open Road develops custom software applications in the automotive and manufacturing industries. For more information about Open Road Technologies, contact Melissa Hughes at 443-367-5229 or email mhughes@openroadtech.com

The logo for LXE Inc. consists of the letters "LXE" in a bold, blue, sans-serif font. A horizontal line with a slight curve underneath the letters suggests a road or a signal path.

About LXE Inc. LXE Inc. improves supply chain performance by applying over 35 years' experience developing wireless products and solutions. From wireless computers, advanced auto-ID technologies, and wireless network infrastructure, to our award-winning customer support - LXE's easy-to-use products are as reliable as the people who install and support them.

Based in Norcross, Georgia, LXE also offers a full range of turnkey services, including radio integration, project and installation management, network design, technical support, and repair services. LXE is a wholly-owned subsidiary of EMS Technologies, Inc. (NASDAQ: ELMG), and has offices worldwide. For more information, visit www.lxe.com.