BYO *Wireless* at Patrick Intermodal.

CASE STUDY

PATRICK INTERMODAL is a leading Australian 3PL company providing a full range of logistic and supply chain solutions including integrated transport, warehousing and distribution. Patrick Intermodal has been in continuous growth mode and such continuously invested in information technology, a key part of which has been supply chain execution systems. Patrick Intermodal knows that the key to providing better service to its customers is to make operations more efficient and transparent.

LXE and Patrick Corporation have a long standing relationship, with LXE supplying wireless networks, wireless mobile computers, and bar code scanning equipment to both the General Stevedoring and Autocare Divisions. When selecting a company to implement a new generation of wireless technology to support the Intermodal operation, Patrick again turned to LXE. The first site to receive the new LXE wireless system was Patrick's multi-user facility at Ingleburn, NSW. This facility is a former grocery distribution center and is the largest facility in Patrick's network at over 50,000 square meters with a capacity of 55,000 racked pallet locations.

The Solution

At Ingleburn, Patrick Intermodal decided to take an innovative approach to its investment in wireless local area network (LAN) infrastructure. Instead of reserving it solely for use by Patrick operators, Patrick planned to lease capacity on the wireless network to customers using the facility that had their own staff and mobile computer equipment. To achieve this objective it was important that the chosen technology comply fully with open standards, thereby allowing customers the best opportunity to use their own mobile computer equipment of choice. The wireless LAN also needed to be highly reliable and provide a high data throughput since it was to be used by Patrick and a number of their clients. The propagation of radio waves used in wireless LANs is highly susceptible to metallic and high water content materials, so a properly performed facility analysis is critical to insuring sufficient coverage and throughput.

The challenging part with the Ingleburn facility was that LXE had to perform the facility analysis in an empty building. Fortunately, LXE's focus is wireless in the warehouse so they had the knowledge and experience to anticipate problem areas and perform the analysis correctly. By employing well developed site survey techniques and the LXE Spire® Solution, the Ingleburn site was fully covered with only twelve access points. By limiting the number of access points, LXE significantly reduced the cost of installing a 2.4GHz wireless network in such a large site. "The wireless networks installed by LXE give me the best of both worlds," says a Patrick spokesman. "I am able to deliver a high performance, robust and reliable wireless network at an economic price. It's absolutely vital that our customers and other users don't experience lost connections as they go about their work with their mobile devices within the warehouse." Patrick employees use a combination of LXE MX1 and MX3 handheld RF computers to take instructions from the warehouse management system (WMS). Instead of users recording material movements or locations using pen and paper and returning to a fixed terminal to enter the information into the WMS, each operator has a mobile RF computer connected to the wireless local area network. Using the mobile RF computer, instructions are delivered and data capture takes place at the pick face, on the forklift, or on the receiving dock, rather than in the supervisor's office. This approach provides improved productivity and information accuracy. Communicating with operators in "real-time" also opens the way for a more sophisticated approach to equipment utilization, occupational health and safety and task prioritization.

The Results

For Patrick Intermodal's fast moving operations, it was crucial that the mobile RF computers be robust and fit in with the materials handling equipment and operating procedures. For the pallet movers, LXE and Patrick jointly developed a bracket to allow the MX3

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mobile RF computer to be securely mounted and remain easily accessible to the operators. "We have found the LXE mobile computers to be extremely robust. Features like the brackets, the large backlit screens and glow-in-the-dark keypads are appreciated by the operators," states a Patrick representative. The Patrick project team did not hesitate when it had to decide on a vendor for the implementation of further systems throughout the Australia-wide Patrick Intermodal network. "Today we see quality equipment available from many vendors of mobile computers and wireless networks," says the Patrick representative. "What's important to Patrick, and what sets LXE apart, is the reliability of the systems provided and their after-sales service and support."

About LXE Inc. LXE Inc. improves supply chain performance by applying over 30 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.