

Productivity Boosted By Wireless Handhelds

Wireless handhelds and a warehouse management system (WMS) help a logistics provider stay in touch with shipments.

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Going the extra mile in meeting clients' requirements for timely, accurate data and on-time delivery of shipments has long been a major weapon in Arnold Logistics' competitive arsenal. It's no wonder, then, that the 28-year-old company is in the midst of deploying a warehouse management application based on wireless technology.

Headquartered in Camp Hill, PA, Arnold Logistics offers general warehousing/distribution, contract packaging/management, fulfillment, reverse logistics, and transportation services to manufacturers nationwide. Operations are located in central Pennsylvania; Dallas; Columbus, OH; and Champaign, IL.

Until 2002, all data pertaining to the arrival and storage of shipments at Arnold Logistics' warehouses, as well as information about shipments dispatched to customers, was recorded manually and re-keyed into its master database. However, at that time, management identified an increasing demand among customers for real-time shipment status data. "We decided a warehouse management system [WMS] would help us meet such demand, as well as enable us to increase warehouse efficiencies and, through automated data entry, reduce the risk of human error," recalls Stan Schrader, senior vice president, business development.

To control hardware costs, the company considered only options that would integrate with its legacy IBM AS400 host servers, as well as work with WMS-03, a warehouse management application written in-house.

Rugged Wireless Devices Handle Warehouse Applications

Wireless computers from three manufacturers were evaluated, with a final nod given to LXE Inc.'s (Norcross, GA) VX1 and MX3 models. "We selected these particular devices partially because configuring them involves simple DOS commands rather than complex programming commands, and integrating them with the host server necessitates only the use of a built-in 5250 emulation option," states Craig Girsch, Arnold Logistics' communications and data services manager. Another factor in the units' favor: their durability was proven when, during a demonstration by the manufacturer, they emerged unscathed from submersion in a sink of water and a four-foot drop to a hard surface.

The company has fully deployed the system at three of its Pennsylvania warehouses. Rollouts are presently underway at facilities in Champaign, IL and Lancaster, PA. Implementation at the remaining warehouses will occur down the road.

All warehouses use a combination of VX1s and MX3s. Both models may be mounted on forklifts, pallet jacks, or other motorized vehicles; the MX3s may also be removed from vehicles and employed in handheld mode. Information appearing on pallets arriving at the warehouses is scanned or key-entered into the units, depending on whether it is in bar code or alphanumeric form. Information travels to the servers, on which WMS-03 resides, over a LAN comprising Cisco wireless access points. Employees also use the devices to access and verify pallet picking and put-away instructions, as well as to enter and transmit to the server such data as pallet put-away time and location.

Boost Efficiency, Accuracy

Schrader and Girsch say the migration to the WMS has significantly bolstered Arnold's operating efficiencies. "Full forklifts mean 30% to 40% better productivity," Girsch estimates.

Additionally, because information is received by the system in real time, automated fashion, the logistics provider and its clients can review accurate, up-to-the-minute status reports on the whereabouts of any given pallet and the merchandise contained within it. "Knowing for certain what occurred when allows us to exceed customer expectations with regard to inventory accuracy, as well as to timeliness of information and shipping," Schrader asserts.