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Enabling you to connect.™

Case Study
Wireless/Wi-Fi

Largest U.S. Hardwood Producer Implements Smart Wi-Fi to Transform Operations, Automate Business Processes

To increase efficiencies across the company, Frank Miller Lumber, the nation's largest producer of fine quartersawn hardwood for furniture, cabinets, architectural millwork and flooring, needed to automate its business processes.

A business need for change

Union City, Indiana-based Frank Miller Lumber had a strategic directive to improve operational efficiencies by migrating from time-consuming, manual-based systems for counting and tracking inventory to a wireless electronic system that could deal with the inherent mobility of workers and the challenging RF environment.

Traditionally a Cisco shop, Frank Miller decided to deploy an S2K ERP (Enterprise Resource Planning) system running over a Wi-Fi network, letting the company move to electronic picking, monitoring and inventory tracking.

"Our two mill locations are full of forklifts, saws, 100-foot long conveyors, and stacks upon stacks of raw lumber — towering over 25 feet tall — all of which cause havoc for radio frequencies," said Jeff Naylor, network administrator for Frank Miller. "Lots of lumber, steel, conveyors, saws, cleaners and other devices that make noise create one insane RF environment. We had no idea what it would take to get Wi-Fi to work in both locations, which is why we called in wireless experts."

Naylor continued, "Whatever Wi-Fi system we picked needed to be able to adapt to constant RF changes that our inventory causes, plus it had to be affordable and easy to deploy and manage, since I am an IT staff of one."

FRANK MILLER™
Quartersawn Hardwood

Frank Miller Lumber

Industry: Mill and Warehouse, Lumber

Number of Employees: 200

Primary Services: Producer of quartersawn hardwood

Challenge
- Implement effective Wi-Fi infrastructure
- Improve operational efficiencies

Solution
- Install Ruckus ZoneFlex 7962 indoor dual-band (5 GHz/2.4 GHz) 802.11n AP
- Deploy ZoneFlex 7962 and 7762-T outdoor APs

Results
- Virtually every inch of 100k sq. ft. facility Wi-Fi-enabled
- Improved worker productivity and process efficiency
- Reduced capital costs

Finding answers and implementing solutions

Naylor turned to one of the nation's leading integrators, Powernet, to attack the issue. Powernet determined that a single ZoneFlex 7962 indoor dual-band (5 GHz/2.4 GHz) 802.11n AP could fulfill the equivalent of the six Cisco APs being recommended. This would save Frank Miller 83% in reduced capital costs.

For the 100,000-square-foot site, Powernet deployed 13 ZoneFlex 7962 and a few 7762-T outdoor APs for full Wi-Fi coverage.

With a minimum number of APs deployed, virtually every inch of Frank Miller Lumber experiences, at minimum, -60 dB in signal strength. Unlike other Wi-Fi systems, Ruckus enables each AP to automatically adapt the transmission and reception of Wi-Fi signals to small mobile devices that are constantly changing their orientation.

Maximizing opportunities

With their Wi-Fi and ERP system in place, Frank Miller Lumber is moving away from manual methods for measuring, managing and processing pieces of lumber. Now, workers simply speak lumber dimensions into a new voice-directed tally system (VDTS) on their belts. This info is wirelessly transmitted to the company's back office, dramatically improving time and accuracy of information.

A single ZoneDirector controller, located within each complex, controls all Ruckus APs for that respective location. Naylor now administers Frank Miller's entire WLAN across all locations from a single ZoneFlex dashboard.

About Powernet

Powernet enables businesses to connect through innovative telecommunications solutions. With networking, voice, data, call center and carrier services, we have the technology and expertise to meet the needs of any size business.

"Now that our Wi-Fi backbone is in place, we expect our operational efficiencies to skyrocket this year."

ALPHA DOG

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