

Ruckus completes wireless infrastructure for BPL

Ruckus Wireless, working closely with local partner, Wireless LAN, have successfully completed an intricate wi-fi deployment at Bidvest Panalpina Logistics (BPL), one of the country's most respected and well-known logistics partners.

The deployment, which was completed in January 2012 saw Ruckus Wireless and Wireless LAN roll out a new wireless infrastructure at one of BPL's most expansive motor parts storage and distribution facilities located in Rosslyn, Gauteng. In this space, BPL manages a parts freighting, storage and logistics service that manufacturers like Nissan rely on daily for vehicle assembly to proceed without hindrance. The site is approximately 61 000m² in size and comprises of a small administrative office and a massive storage yard.

Coverage of yard was a challenge

BPL prides itself in the design and delivery of tailored supply chain solutions for key clients, and being "first-to-market" often creates other opportunities down the line. "We have partnered with Wireless LAN in many other solutions specific to our warehousing division in the past, so it was an easy decision when confronted with the challenges posed by this automotive client," says Alex Moir, BPL chief information officer.

Says Clinton Mackintosh, Wireless LAN managing director: "While providing wired-and-wireless access to the administrative office was never a challenge, providing blanket wireless networking coverage to the open-air storage yard, to allow crane operators the ability to receive real-time instructions on their Windows-based Intermec mobile computer terminals and retrieve required containers timely, was an entirely different matter."

The arrangement of BPL's parts-filled containers around the property meant wireless networking signal was easily disrupted and blocked. Additionally, there was the size of the required coverage area to contend with, the facility's strange triangular shape to negotiate and the fact that providing a hard-wired Ethernet backbone wasn't an option. "So we called in Ruckus Wireless to enquire about a wireless mesh solution, as this seemed like the only remotely viable option to pursue," adds Mackintosh.

Built for harsh conditions

Ruckus Wireless recommended the use of two 7731 Outdoor Bridges to provide point-to-multipoint backhaul into the administrative office and the outdoor network respectively. As these bridges are based on the 802.11n standard combined with a Ruckus smart directional antenna and support up to 190 Mbps of backhaul capacity at 1.5km, and up to 50 Mbps of backhaul capacity at 10km (line of sight), they were perfect for the job. Next, to ensure the entire outdoor facility was blanketed with coverage, Ruckus proposed the use of nine ZoneFlex 7762 outdoor access points and one ZoneDirector Controller 1112.

"Not only are these access points built to withstand the harshest of outdoor conditions, they're designed to function as standalone access points or managed devices," said Michael Fletcher, sales director at Ruckus Wireless sub-Saharan Africa. "In the context of BPL's challenges, this meant no additional physical infrastructure was required - other than power - to provide blanket coverage to the facility."

Innovative power solution

Power provision was also dealt with rather innovatively. Given the cost to trench power to all nine remote sites and the reliability of grid power, an 'off the grid' solution, based on solar power, made perfect economic sense. This, coupled with the fact that the power requirements for the Ruckus solution could run off this innovative energy saving platform - the power solution recommended not only met requirements perfectly, but meant that maintenance would be kept to a minimum.

"BPL's operation in Rosslyn now functions efficiently," says Moir. "Not only is the network link into the facility's administrative office quick and reliable, collection instructions can be issued from this office, received at a terminal in a crane or picking machine and actioned far more accurately and in a fraction of the time it took before."

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