RAJANT

CASE STUDY

Mealey's Furniture Improves Productivity and Distribution with Rajant's Kinetic Mesh™ Network

Established in the 1970s, Mealey's Furniture owns and operates six stores and a warehouse in Pennsylvania and New Jersey. The company prides itself on high quality furniture, excellent customer service and next day delivery as a standard practice.

The Challenge

Mealey's Furniture depends on its warehouse operations to deliver orders on time and maintain positive customer relationships. Its wireless network is a critical part of the order fulfillment process, as the company incorporates RFID tracking. So when Mealey's network started to drop connectivity on a regular basis, sometimes going down for three to five days at a time, leadership recognized it needed to find a solution quickly.

"We deliver our merchandise the next day, and when you cannot maintain communication to pull merchandise from the racks, it creates a major problem," said Ed Darcy, Mealey's President.

Mealey's order fulfillment system includes seven order pickers (or lifts) equipped with computers that communicate with access points. Other wireless equipment essential to business includes computer carts, workstations, handheld scanners and iPads. Much of the equipment operates on a radio frequency, and every time the equipment goes down, it causes business interruptions and affects productivity.

Despite dedicated efforts to determine the cause of the problem, the loss of connectivity remained a mystery, so Mealey's tried to network as much of the hardware as possible. When that initiative fell short of achieving the connectivity Mealey's needed, the IT team met with neighboring businesses to find out which solutions they were using. One neighbor revealed it was using Kinetic Mesh technology from Rajant.

Company Profile

- Regional furniture sales chain providing next day delivery standard from its warehouse to the East Pennsylvania / New Jersey area.

The Challenge

- Business disruptions caused by long periods of dropped network connectivity – sometimes three to five days at a time – were impacting the ability to deliver orders on time.

The Solution

- Rajant Kinetic Mesh™ private wireless network enabled via (2) BreadCrumb® ME4-2450Rs and (9) BreadCrumb JR2-24s.

Kinetic Mesh Partner (KMP)

- Becker Wholesale Mine Supply: the world's largest supplier of two-way underground communications systems, which are turnkey from design to test and termination.

Outcome and Impact

- The company has experienced no downtime or interruptions since implementing its Rajant Kinetic Mesh network.
- Reliable connectivity has enabled improved productivity as team members can scan merchandise without interruptions to maintain proper inventory cycles.
- Elimination of downtime has allowed the business to focus on opportunities to improve other picking, quality control, and inventory processes.

The Solution

After a series of meetings in which Rajant assured Mealey's it would not leave until the network was performing at its optimum level, the furniture supplier decided that Rajant was its solution.

Kinetic Mesh networks provide optimal connectivity across an organization's dynamic environment of fixed and mobile assets, delivering critical information in real-time. Rajant's network employs nodes, or BreadCrumbs®, to unfailingly direct data via the best available traffic path and frequency. Nodes can act independently creating a true peer-to-peer, mobile-enabled network. And with no single point of failure, Rajant's technology guards against interruptions that cause costly downtime.

The installation process of Rajant's network was smooth, taking just one-and-a-half days in July 2015. Chad Bittinger, Systems Integration Manager at Becker Wholesale Mine Supply, oversaw the project. Bittinger and his team used 11 nodes – two ME4-2450Rs and nine JR2-24s. They deployed the JR2-24s on Mealey's mobile network, made up largely of forklifts for picking.

ME4-2450R

Aside from a few minor glitches when Mealey's needed to make repairs to its wired network, the company has experienced no downtime or interruptions with Rajant's solution. Interruptions occur only when the IT team performs an upgrade, and they are brief.

> Downtime is really the critical factor in our business. We just cannot afford interruptions, and with Rajant's technology, we have virtually none.
>
> **— Ed Darcy**
> President, Mealey's Furniture

Just two months into having a stable wireless network, Mealey's has already seen an improvement in productivity. The numbers in the departments affected by the network are headed in the right direction, and the morale alone has helped keep employees motivated. Perhaps most importantly for Mealey's, the inventory team has made great strides in its efficiency. With Rajant's reliable connectivity, team members can scan merchandise without interruptions, allowing them to maintain appropriate inventory cycles, as well as correct human errors through the technology.

"Before Rajant, the first question on our minds each morning was, 'will operations be up or down today'? It was very worrisome. Now, thanks to Rajant, it has become an afterthought; we rarely need to think about it. The network used to really consume our time and IT resources. The morale of the team – including the managers on the floor and the workers who deal with the equipment – has improved remarkably. And we have switched gears into improving some of our other processes that needed attention," Darcy said.

The capabilities of Rajant's network have also provided new opportunities. For example, Mealey's is looking into using cameras on forklifts to monitor operators' picking processes. This could aid in quality checks, as well as tracking down misplaced inventory.

"Downtime is really the critical factor in our business. We just cannot afford interruptions, and with Rajant's technology, we have virtually none," Darcy said.

Tel: 484.595.0233 | **www.rajant.com**

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