Aerohive
NETWORKS

case study

Innotrac

Worldwide Distribution Experts Seamlessly Deploy Wireless in the Enterprise and the Warehouse for Hundreds of Concurrent RF Users

Requirements

- A wireless network with a strong signal to reach 100 handheld devices in huge warehouses.
- A wireless network that can rapidly scale.
- A WLAN that's easy to set up and manage.
- An online management tool that can quickly upload quarterly encryption changes to selected access points.

Results

- A wireless network that conquers the metal maze presented by warehouses with acres of metal shelves.
- A fast, reliable, scalable wireless network.
- Aerohive's HiveManager Online tool provides centralized configuration and monitoring
- Aerohive has emerged as a company standard and replacement project for its warehouses.

The Company

When you're a rapidly growing, best-of-breed, third-party fulfillment company with warehouses stretched across the globe – and serving global brands – an enterprise-class wireless network is a must.

That's exactly what Innotrac needed. Innotrac Corporation, founded in 1984 and based near Atlanta, Georgia, is a best-of-breed commerce provider integrating digital technology, fulfillment and contact center solutions to support global brands. The Company employs sophisticated order processing and warehouse management technology and operates eight fulfillment centers and one call center spanning all time zones across the continental United States. Innotrac Europe GmbH has a network of fulfillment centers, call centers, and returns processing facilities with operations in the UK, Germany, France, Denmark, Sweden, Poland, Austria, Italy, Switzerland, Ireland, Spain and the Netherlands. Connect with Innotrac at www.innotrac.com or www.linkedin.com/company/innotrac.

> "[With HiveManager Online] You go from four hours of set up time to literally 30 minutes, if that."
>
> **—Darrius Key**
> Wireless Expert, Innotrac

The Challenge

If you're not sure what a third-party fulfillment company is, think of Innotrac as consisting of many huge warehouses across the U.S. and Europe, and these warehouse contain acres of metal shelving holding tens of thousands of items for leading brands like Microsoft, AT&T, Charlotte Russe, Ann Taylor and Ann Taylor Loft, Beach Body (seller of the popular P90X fitness equipment), and many other online retailers.

"Most of our facilities are warehouse/distribution centers with high-density product and large seasonal spikes in order volumes, which required a large concentration of employees in certain areas of the warehouse," said John Cummins Jr., Director of IT Operations and Information Security for Innotrac.

"Across the enterprise we have 550 concurrent RF users on the system. We have a total of 120 access points across the enterprise," Cummins said. "We use wireless in our facilities to provide office access to the internal network as well as internet access."

The busiest warehouse ramps up to 300 concurrent RF users during the peak season. "It's very challenging to get wireless coverage in that kind of environment," he said. "That's our biggest challenge."

Those types of massive warehouses will test any enterprise-class wireless network. Innotrac has tried many solutions to navigate

the metal maze, but Aerohive has beaten the competition with its combination of APs with strong wireless radio signals, controllerless architecture, ease of use, excellent support, and price point.

The Goal

In Innotrac's eight warehouses, the company has been using a mixture of Symbol, Meru, and Cisco wireless access points.

Some APs from other vendors featured a radio signal that wasn't strong enough for the company's complex warehouses. "Attempts to add more access points in those densely populated areas caused contention with the access points," Cummins said. "Users moving throughout the warehouse were constantly losing signal and having to reconnect or reboot their RF devices which can slow down warehouse productivity."

As the configuration of the warehouses change – a sign of a growing company – Innotrac is constantly adding or moving access points to maintain sufficient signal, as well as adjusting frequencies.

Considering the Alternatives

The company tried other controllers and access points in one of its largest warehouses several years ago.

"The implementation was difficult and did not go well," Cummins said. "It took us about six months to achieve a satisfactory operating environment." He added that that while the technology offered decent roaming coverage and increased density per access point, it was expensive to maintain.

The strong radio signals coming from Aerohive APs emerged as a big differentiator. "With some of the other wireless access points, we were limited to 25 or 50 wireless handheld guns (in the warehouse) max before the AP itself would stop processing or it would just hang," said Darrius Key, Innotrac's wireless expert. "With Aerohive APs, we were able to get up to a max of at least 100 devices per AP."

Deployment

Innotrac was introduced to Aerohive in 2012. "Our CFO got a cold call earlier this year," Cummins said. Aerohive looked very innovative, he said, and Innotrac began evaluating several Aerohive AP350s in March 2012 in one of its warehouses. The results were nothing short of spectacular: better coverage per AP, better manageability,

quick and easy installation, better functionality (including the ability to bridge two AP's together) and the ability to VLAN different wireless network segments.

Cummins said that Aerohive started initially as a new warehouse deployment and has emerged as a company standard and replacement project.

Innotrac is using Aerohive's cloud-based HiveManager Online Network Management software and reports that this has been a differentiator against other solutions. "'Second-to-none' is a quote from one of my network engineers," Cummins said.

Key also sang the praises of the time saved using the HiveManager Online tool. Before Aerohive, he had been required to log into each AP one at a time to make encryption changes.

"And we would do this for approximately 100 or so access points, one at a time," said Key.

Now with Aerohive, he just logs into the HiveManager Online console, makes the changes he needs to make, selects the appropriate APs, and hits upload. "You go from four hours to literally 30 minutes, if that," Key said.

Other wireless vendors have management tools, he said, with Aerohive you get a total solution.

As for a reseller, Innotrac uses Aerohive-partner DBK Concepts Inc., headquartered in Miami, for the purchase of the equipment, and then Innotrac does the installation.

Results

"Our experience with technical support has been exceptional," Cummins said. "Aerohive answers the phone within two minutes and the person answering the call is very knowledgeable of the product and able to resolve the issue without passing us to someone else. The technology is well developed and exceeds our expectations."

The company intends to replace all other APs through the organization with Aerohive, "This is one of the most innovative products to come along in my 22-year IT career," Cummins said.

As to whether Cummins would recommend Aerohive to others, he gave an enthusiastic thumbs-up and said he already had.