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CASE STUDY

Barcoding's Active Asset Tracker (AAT)™ Solution Beacons International Quality Control for Large, International Healthcare Nonprofit

Background

An international, non-profit health organization affiliated with the largest and oldest research institutions in the United States has worked with health experts, governments and community leaders to provide healthcare for women and their families in more than 155 developing countries for 40 years.

By designing and implementing innovative, effective and low-cost healthcare solutions and interventions, the organization helps break down barriers to high-quality health care for the world's most vulnerable populations.



Challenges

In each country served, the nonprofit has warehouses that store and ship goods—supplies, training materials, consumables, assets and more—out into the field. Many of these goods are pharmaceuticals and sterile items that must be kept at certain temperatures. While a thermometer and periodic manual checks were sufficient, the organization wanted a more efficient and accurate method of monitoring temperatures to ensure the quality of its goods.

Further, the potential for power outages and equipment downtime posed additional concerns for the healthcare nonprofit. Should an air conditioner or generator malfunction, the stored pharmaceuticals may be exposed to unsafe temperatures. The nonprofit sought a way to allow staff to respond to such incidents in a timelier manner. However, the solution for monitoring the warehouse environments had to be cost effective—something quick to deploy, low risk and easy to maintain.

Solution

Already working with Barcoding, Inc., to implement an inventory tracking system at several locations, the nonprofit presented its temperature-monitoring dilemma to the systems integrator. Barcoding recommended its Active Asset Tracker (AAT)[™] Solution, which was developed with its enterprise asset tracking partner, Visybl.

Leveraging the power of the Internet of Things (IoT) and Bluetooth Low Energy (BLE) beacons, AAT's sensors provide near real-time physical inventory visibility. Once placed on tracked assets, these battery-powered beacons continuously communicate data—including the asset's presence, temperature, location, movement, battery power and signal strength—to a "cloud node" connected to a Wi-Fi network. The cloud node sends the information to Barcoding's AAT software application for the end user's review.

Although AAT has the ability to track a number of characteristics, the nonprofit opted to use the solution solely for its temperature-monitoring capabilities. A low-cost, low-risk option, AAT was just what the organization needed.

The nonprofit deployed AAT in warehouses in Mozambique, Malawi, Zambia and Tanzania, placing the asset beacons and cloud nodes around the facilities' temperature-controlled zones. As the beacons communicate their temperature to the cloud nodes, data is uploaded directly to Visybl's cloud-based application. Through the application's online portal, the nonprofit sets thresholds so that the beacons will send an email notification whenever an unsafe temperature is reached. Should this happen, staff can take action.

Results

With Barcoding's AAT Solution, the nonprofit is ensuring the quality control of the supplies it provides to those in need. The organization is now more efficiently monitoring the temperatures of pharmaceuticals and healthcare items in three warehouses. It has also eliminated manual, pencil-and-paper temperature "checks," thereby improving the accuracy of the data it collects.

And, with access to continuously transmitted information via AAT's online portal, the nonprofit's staff is more connected. This visibility allows employees to be more proactive than reactive. If a temperature begins to spike, they can investigate the issue and determine an appropriate solution—before it becomes a bigger problem. So, if workers in Baltimore notice a rising temperature at the Malawi warehouse, they can contact on-site staff to investigate. If workers find that an air conditioner malfunctioned, for example, they can relocate the temperature-controlled goods until the unit is repaired.

In addition to temperature data, the nonprofit received an unexpected piece of extra insight through AAT. When a cloud beacon goes offline, it is indicative that there is an Internet problem or a power outage. With this information, the organization can analyze uptime to make further decisions regarding Internet Service Providers and more.

Moving forward, the healthcare nonprofit plans to implement Barcoding's AAT in additional warehouses across the globe.

At A Glance

Background:

- An international, non-profit health organization affiliated with the largest and oldest research institutions in the United States
- For more than four decades, the nonprofit has been dedicated to improving the health of women and families in developing countries.

Challenges:

- Sought a more efficient and accurate method of monitoring temperatures of goods and supplies in warehouses across the globe.
- Needed a way to respond to equipment down time in a timelier, more effective manner.

Solution:

- Barcoding's Active Asset Tracker (AAT)[™] Solution with temperature monitoring capabilities.
- AAT's cloud-based, online portal.

Results:

- The healthcare nonprofit is ensuring the quality control of its goods and supplies.
- Staff are more proactive, rather than reactive, in monitoring warehouse environments.