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## Wireless & Mobility Solutions

**WIRELESS TRACKING:** Alaska Air Cargo relies on bar code scanner-enabled mobile phones to improve shipment visibility and reduce customer claim reimbursements.

**FIELD SERVICE AUTOMATION:** Siemens Medical Solutions realized a \$1.5 million productivity gain from a new mobile field service solution.

**SHOWCASE:** Find the latest wireless and mobility solutions in our comprehensive resource guide.

Kimberly Hantz, manager, station process and projects,  
and Matt Yerbic, managing director, Alaska Air Cargo

## REAL-TIME SCANNING IMPROVES SHIPMENT VISIBILITY FOR ALASKA AIRLINES

*Alaska Air Cargo implemented a wireless tracking solution to improve shipment visibility and reduce customer claim reimbursements more than 20%.*

by Kristen Chapin

The Pike Place Market in Seattle is famous for its workers tossing fish back and forth and, occasionally, to a passerby. That fish market — and others like it — receive and ship fresh fish, usually within 24 hours. The responsibility of that quick turnaround falls on transportation companies, such as Alaska Airlines. Alaska Air Cargo transports 150 million pounds of cargo annually (30 million pounds of which is fresh Alaskan seafood), including mail, food products, animals, medical shipments, and other freight items. The airline also offers a small package express service, called GoldStreak.

While Alaska Air had no problems with the planning of its flights and cargo pickups/deliveries, it was experiencing problems with shipment visibility. “The question we repeatedly heard from both customers and employees was, ‘Where is my shipment?’” says Matt Yerbic, managing director, Alaska Air Cargo. “We weren’t always able to answer this question from our manual system.” The manual system was based on proprietary flight data and a cargo reservations system from vendor SITA. Shipments received were logged into the system (much the same way passengers are logged in at ticketing gates in airports) and assigned a flight based on schedules, capacity, etc. After entire shipments had moved through Alaska Airline’s cargo facilities, employees would update the program (which was an old, green-screen system with long-string entries) at PCs situated throughout the cargo facilities. Note that the workers were updating that shipments had gone through, not individual items. “We had to make a lot of assumptions about where a particular product would be,” says Yerbic. “Our system didn’t allow us to find items as well as we wanted, and we had to spend extra time looking for something.” Finding items in a cargo facility often took many hours and involved multiple employees. If an item didn’t ship, either because there wasn’t room or because it was missed, that information wouldn’t always be reflected in the SITA system. “Employees didn’t even know where to begin to look,” says Yerbic. “We’d sometimes have employees in three of our facilities all looking for an item at the same time.”

### NO WLAN? GO WWAN!

Alaska Airlines knew it needed a better way to track packages, but the company had tried scanning solutions in the past (not for cargo) that had failed because of cost, complexity, or airline

regulations. Most tracking applications use bar code scanners, often attached to handheld or vehicle-mounted (e.g. on forklifts) computers. To have the most effective and up-to-date solution, the computers need to communicate with back end systems in real time, which requires communicating over a wireless network. Typically, the type of network used in these applications is a WLAN (wireless LAN), i.e. Wi-Fi, but that posed a problem for Alaska Air. “It is not an easy task to install a wireless network in the cargo and tarmac area of an airport,” says Yerbic. “First, like other industrial areas, the cargo facilities are full of moving, metal parts that make the setup of a wireless infrastructure rather difficult. Second, the airports have strict regulations about where wireless can be used. We would have to engage in detailed

**“It is not an easy task to install a wireless network in the cargo and tarmac area of an airport. ...”**

Matt Yerbic, Alaska Air Cargo

discussions with airport regulations officials to make the case and get approval.” Alaska Airlines still investigated bar code tracking solutions, but looked for alternatives to installing a WLAN. They found the alternative in scanning solutions that communicated over WWANs (wireless WANs), i.e. cellular data networks.

The WWAN scanning solution Alaska Airlines chose came from AirClie. The solution includes an AirClie mobile application and AirClie AC25 scanners (branded by Motorola) attached to Sprint Nextel i355 mobile phones operating over the Sprint Nextel iDen data network. “We chose AirClie largely because the software was easy to design,” says

### Installation Profile

**Technology User:** Alaska Airlines transports 150 million pounds of cargo annually, including mail, food products, animals, medical shipments, and other freight items. Alaska Airlines and its sister carrier Horizon Air serve 88 cities throughout Alaska, the lower 48 states, Canada, and Mexico.

**Problem:** Alaska Airlines used a legacy cargo reservation system to track its shipments, which required workers to type shipment activity, which was not always accurate, into stationary PCs. The airline did not have precise knowledge of where shipments were in the process to answer customer requests and often spent many labor hours searching for products.

**Solution:** The airline implemented a WWAN (wireless WAN)-based tracking solution composed of an AirClie mobile application and AirClie AC25 scanners attached to Sprint Nextel i355 mobile phones operating over the Sprint Nextel iDen data network. With the solution, facility employees scan shipments as well as bar codes at specified checkpoints to note the shipment’s movement. With more accurate scanning, the airline has reduced customer claim reimbursements more than 20%.

Photos by Steve Venito



Kimberly Hantz, manager, station process and projects,  
and Matt Yerbic, managing director, Alaska Air Cargo

Kimberly Hantz, manager of station process and projects. “If you could make a flow chart, they could design the software to reflect it.” Alaska Airlines decided to deploy a small pilot solution — called Phase I — for its GoldStreak service in the hub cities of Seattle; Anchorage, AK; Portland, OR; and Los Angeles. Full deployment (Phase II) is



**Alaska Air Cargo turned cell phones into handheld computers with bar code scanning capabilities with the AirClic scanner attachment.**

planned for the end of 2006. “We deployed the solution in this method to ease the solution into our processes and understand any potential problems or process reengineering needs,” says Hantz. “We wanted to see if we could get the solution off the ground quickly and easily first, then plan for the full-scale deployment.”

### **IMPROVE TRACKING WITH REAL TIME**

Using the AirClic solution, cargo employees scan bar codes on each shipment as well as at specified points throughout the shipment's process to update the cargo tracking system. Shipments are scanned at acceptance, flight manifest (where the shipments are assigned to particular flights), arrival, and release to the customer. The verification the scans provide is sent wirelessly via the AirClic application to Alaska Air Cargo's tracking sys-

tem. The system has a Web interface where customers can view the progress of their shipment.

With the Phase I solution in place, Alaska Air Cargo is able to provide information to customers when they inquire about a shipment. The airline's employees no longer have to spend hours searching for a package. The act of scanning provides information in the cargo tracking system that shows exactly where a shipment is in the shipping process. The airline has been able to eliminate the wasted effort involved in manually tracking shipments and has reduced customer claim reimbursements more than 20%. Because of these benefits, the company decided to roll out the solution to all Alaska Airlines and Horizon Air stations that handle cargo to coincide with its new cargo management software system upgrade. □