



Business In The Beltway

Dude, Where's My Scissor Lift?

Andrew T. Gillies 04.26.07, 4:00 PM ET

WASHINGTON, D.C. -

Like the private sector, the U.S. federal government is bullish on technology for keeping better track of stuff. Take the Department of Defense's supply-chain experimentation with radio frequency identification, or the Federal Aviation Administration's push to usher in [satellite-based air traffic control](#).

One venture-backed company looking to cash in here: Ekahau. The Saratoga, Calif., outfit, 65 employees strong, sells systems that track goods using wi-fi technology. Wi-fi, for anyone wondering, refers to kind of wireless local access network--the kind you use at Starbucks to surf the Internet on your laptop.

In terms of its business, 15% of which comes from customers in the public sector, Ekahau is targeting physical spaces much bigger than a coffee shop. Example: Hill Air Force Base. Located in northern Utah, Hill employs thousands and is home to seven U.S. Air Force wings. Its Ogden Air Logistics Center does maintenance and overhaul work on hundreds of F-16, A-10 and C-130 aircraft each year, as well as engineering and logistics management for weapons such as the Minuteman intercontinental ballistic missile.

The Air Force has a keen interest in better ways to manage the gear involved in all this upkeep. The faster mechanics get the tools they need, the faster planes get out of the hangar and back into service.

A year ago, Ekahau's tracking system was chosen for a related pilot project at Hill by Knowledge Based Systems (KBSI), a contractor to the Air Force. The company slapped Ekahau tags (see box image) on scissor and wing lifts, stands, dollies and other equipment relied on by Hill's repair staff. Ekahau's software, known as the Ekahau Positioning Engine, managed location information flowing from the tags, as well as laptops and PDAs carried by Hill personnel.

"The pilot went very well," says Michael Graul, a senior research scientist with Knowledge Based Systems. "We were able to pick up within 15 feet where an item was."

That kind of endorsement should help Ekahau as it refines its technology and seeks to expand. The company's history dates back to the mid-nineties, when mathematics researchers at the University of Helsinki sought ways to determine location by measuring signal strength of radio waves.

That work yielded enough intellectual property to warrant commercialization. In 2002, as wi-fi networks began to become ubiquitous, Ekahau got underway as a purveyor of software to track PDAs and laptops. A year later, the company began to make tags that can be stuck on high-value items such as scissor lifts or pallets of goods. In an area covered by a wi-fi network--such as a warehouse or hospital--those tags communicate with Ekahau's software to transmit location. Broadly, the category is known as real-time locating systems, or RTLS.

Since 2003, Ekahau has release three generations of tags, each one 30% to 50% smaller in size than the previous. The current model of Ekahau chip, a bit bigger than a matchbook, costs about \$50 individually and in the \$30 range when bought in bulk.

That price has been right for one set of customers: hospitals. "You walk into a hospital, and it's chaos," says Tuomo Rutanen, Ekahau's vice president for business development, who works out of the company's Reston, Va., offices. "Everything is on wheels."

And, like the Air Force base, there are implications for hospitals if they can't find things quickly. "You might have a piece of equipment on a hospital floor that's six months overdue on maintenance," says Rutanen, "It may be giving you erroneous information."

Tracking people is another use in a medical context. In Asia, Rutanen says, interest in Ekahau's product ticked up in the wake of the 2003 outbreak of Severe Acute Respiratory Syndrome. A hospital can use RTLS tags to monitor patients and which care providers they've been in contact with.

All this has attracted investor interest. In 2006, Ekahau brought in \$16 million from individuals, the Finnish government, Nexit Ventures, and 3M.

Of course, there's competition, notably Richardson, Texas's InnerWireless. That company recently merged with Framingham, Mass.-based PanGo Networks. PanGo, whose business closely resembles Ekahau's, has struck partnerships with big wireless players such as Cisco Systems and Hewlett Packard.

Another company to watch in this field is Zebra Technologies, whose WhereNet unit sells RTLS to industrial and military customers, including the Air Force.

For its part, Ekahau has its share of high-profile partners, particularly Motorola, IBM and Sybase. Rutanen argues his company has the leg up on InnerWireless when it comes to accuracy. As for WhereNet, Rutanen says their offerings are more equipment intensive, requiring customers to set up a dedicated wireless networks instead of using wi-fi gear already in place.

KBSI's Graul says the latter argument could cut both ways in the military market. "Sometimes [military information technology] people take a dim view of the dual use of the same network," he says. "Is there going to be overuse of the resources if they have too many tags?"

But given rapidly evolving technology and improvements in wireless bandwidth, Graul suspects setups like Ekahau's have a good shot. "I think that's going to be a winner," he says.