



## COVER YOUR **ASSETS** AND **TRACK** THEM TOO

**SAMPLE**



### GPS TECHNOLOGY MATURES AS A VIABLE SECURITY OPTION

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**S**ecurity concerns continue to rise and enterprises continue to look for better and more efficient ways to protect and track property and people. Sometimes RFID can do the trick, but with an ever-expanding menu of needs, businesses often require something more.

Global Positioning System technology presents a neat, eminently deployable and potentially powerful option, but knowing when it makes sense and understanding how to build out a solution can be key to solution providers' success.

Depending on how it's deployed, GPS is often more cost-effective than RFID, with less complexity. But there are some gaps in coverage unique to GPS.

To examine the ins and outs of GPS, the CRNTest Center worked with **BrickHouse Security**, a New York solution provider, to get insight into the best practices for successfully deploying a GPS solution. We also sent a GPS tracking solution on a test run—taking a palm-size tracking unit on a trip from New York to California, and then FedExing it back home to watch its progress.

As with most solutions, determining the customer's needs is the primary step. For businesses that are only looking to

keep high-value inventory within a confined area, RFID will probably suffice. But because RFID is a passive technology, it can't be located on a minute-by-minute basis if moving. Here, GPS may fit the bill.

A GPS consists of two parts—the transceiver that receives signals from satellites and the back end (usually software-based), which processes the acquired data into discernible information. Even here, solutions can vary in the level of detail and urgency with which information is logged. This is by no means a one-size-fits-all solution; there are various GPS devices and each one serves a purpose.

Outside of navigation, there are four major uses of GPS: emergency location, data logging, asset management and tracking. Emergency locators are for search-and-rescue efforts; they send out a distress signal that allows the devices and their holders to be located. They've historically been used for sailors lost at sea or finding downed planes, but an increasing number of hikers, mountain climbers and the like also are using them.

If instantaneous tracking is not a necessity, GPS data logging can be a relatively inexpensive solution that stores location data into internal memory and can later be attached to a computer via a USB port or wireless connection. Then, using software, location data can be plotted on a map showing exactly where the unit has been, at what speed it was moving and the length (with location) of stops. With a plug-in, the data can even be superimposed onto a satellite image. The advantage to data logging is that users get a detailed report at a low cost with no monthly fees. Business uses include tracking a company car, monitoring expensive equipment on the road or tracking expensive property.

For instantaneous tracking, several decisions need to be made. Although the general functionality of the transceivers is the same, there are many different specifications to be considered. One would be battery life. Current devices have battery lives ranging from six hours to 30 days. If a unit will be installed in a vehicle, another option is to permanently hardwire the transceiver into the electrical system, which enables near-realtime transmission (every 5 to 10 seconds) because they don't need to conserve battery power.

Although the cost can be a bit prohibitive, a derivative of GPS known as AGPS (Assisted GPS or Advanced GPS) may be a good fit for loss-prevention of extremely high-value items. AGPS devices can continue tracking, even when there is no clear line of sight to the open sky. These units can be hidden inside equipment or cases and still track in realtime, providing customers with location information via the Internet.

BrickHouse loaned the Test Center an AGPS device and created a temporary account for us on its Web site. The device was taken on a trip from New York to California and then shipped in a box via FedEx ground service back to New York. Reviewers were able to log into the Web-based account, click into a MapQuest-based applica-

tion and follow the package from home to the airport runway, and then again as it made its way back across the country.

AGPS utilizes cellular phone towers for the "assist" (in this instance, Sprint's), so tracking can be impacted by the cellular network. We temporarily lost touch with the package while it was in the Nevada desert where Sprint's coverage dropped. But even with the short-term blackout while the device rode through the desert, the BrickHouse solution provided much more timely and granular tracking data than FedEx.

As the solution is mostly software-based, the back-end part of a GPS system is where the magic happens. It's usually where most of the customization is done and where solution providers will find an opportunity to support their customers best. Once the data comes across, it can be formatted to a spreadsheet, e-mail or tracking application.

Here's an example of realtime tracking: Traditionally, the jewelry and diamond industry is a face-to-face business, where the product changes hands in person, so by utilizing two devices, one hidden in a jeweler's case and the other somewhere on his person, BrickHouse could monitor a jeweler's security from beginning to end. Any unreasonable separation of the signals would trigger an alert that something is wrong. After being alerted, monitors would have a constant, realtime location of both the jeweler and the goods.

A reverse use of the same software could be utilized by fleet managers whose vehicles have assigned territories and should not be near each other. By having the system trigger a proximity alert when the two vehicles are within a defined distance, employee productivity can be increased.

In fact, any business with a fleet or even a handful of vehicles may be able to benefit from some kind of GPS system. Fleet managers can effectively adjust routes and schedule additional pickups on the fly, as well as see when their drivers are not where they are supposed to be or are violating speed limits. In addition, GPS units can help reduce vehicle and cargo theft, which may also lower insurance costs.

Building a GPS security practice isn't done on the cheap, nor overnight. With a \$3 million-plus investment (including a six-figure licensing fee to MapQuest), BrickHouse developed its current practice and is now one of only six companies, plus the federal government, with direct access to Sprint's wireless network for this type of solution.

The bottom line: GPS is for more than just navigation, and knowing a customer's business needs may provide an opportunity to supply a custom solution that prevents loss and delivers ROI. ■

