

Technology Update

GPS Increases Productivity — Cuts Costs



Marc Center of Mesa, a non-profit corporation in Mesa, Ariz., that provides services to children and adults who are developmentally disabled or mentally ill, has a fleet of some 50 vehicles that it uses to transport its clients.

"Our biggest risk as an organization, because we're transporting people, is accidents," said John Moore, chief financial officer of Marc Center. The Center's management needed to ensure that drivers were complying with speed limits, traveling the most economical and safe routes, and not using the vehicles for unauthorized purposes.

These management needs are not only being met, but converted into enforceable directives with the use of vehicle tracking technology, Moore said. Indeed, vendors of such systems and fleet administrators who are using them said that implementing global positioning system technology, along with fleet management software and a wireless Internet connection, can yield a raft of operational efficiencies, productivity gains and cost savings.

The global positioning system (GPS) is a network of satellites orbiting Earth that enables users to pinpoint the location of things on the ground. The systems on the market typically combine GPS and fleet management software, and work in conjunction with a mobile communications system to transmit information to a Web site, where fleet administrators can enter a user name and password to view maps that show vehicle locations, and other data presented in report form.

Moore of Marc Center said, "One of the largest management challenges we face is to effectively monitor our fleet. Unsafe or unnecessary driving not only increases expenses — gas, repairs — but it also increases the possibility of a serious accident."

In January of 2006, the Center contracted GPS Fleet Management, Paradise Valley, Arizona, a consultant and dealer, to provide global positioning system hardware for every vehicle.

GPS Fleet Management distributes the tracking hardware and fleet management software of a number of manufac-

turers, said Myron Hammes, president of the company. Hammes said he works with each customer to analyze its fleet operations and match it up with the most suitable tracking system and management software.

Moore said Marc Center has benefited measurably. "We can watch what our vehicles are doing from any computer using the Internet," he said. Among the benefits Moore cited: daily, weekly and monthly reports are automatically e-mailed, showing what time a vehicle started and every stop made; data is downloaded for easy analysis of routes, mileage and personal use of vehicles; and e-mails are sent automatically, in real time, to supervisory personnel if a vehicle is speeding, idling excessively, started after hours or operated outside the Phoenix metropolitan area.

The system is reaping savings and is on track to earn back its investment within one year, Moore said.

"We've saved about 20 percent on insurance," Moore said, and the number of complaints to a toll-free "How's my driving?" number has dropped significantly.

"The bottom line is we're driving fewer miles and we're safer," Moore said. The Center is now starting to weigh information from the system in employees' performance evaluations for merit increases, Moore said.

Todd Lewis, president of GPS North America, a provider of global positioning and fleet management software in Langhorne, Pa., said a tracking and fleet management system should yield increased productivity and/or decreased costs in both labor and vehicle expenses. "Nobody buys global positioning and fleet management system because it's really neat to see where your guys are on a computer screen," he said.

Benefits in concrete terms could be that a route is com-



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pleted in eight hours, instead of 12, for example, saving four hours' labor per day; or an employee is able to make more deliveries in the same amount of time, boosting productivity.

Lewis also cited peripheral benefits, such as safer driving, that result from the system's ability to monitor driving practices and highlight those that are unsafe.

Lewis said his company's system has a built-in speed alert that a fleet administrator can program to suit his or her needs. "Any time a vehicle exceeds a speed limit the driver receives an e-mail or the system can ring their cell phone, letting them know that the vehicle is speeding," Lewis said.

He called such capabilities "tap on the shoulder" features, designed to be easy to use, that tell a fleet manager about operational issues without requiring the manager to ask, look or mine for it.

Any company with mobile workers involved in sales, service or delivery can benefit from a global positioning and fleet management system, Lewis said. These include HVAC and swimming pool maintenance companies, and distributors of goods, whether auto parts, food or other items.

In the case of most systems, the GPS device typically is installed under the dashboard, and often a laptop can be plugged into it. The Internet connection is typically achieved through cellular communications.

Lewis said that GPS North America's system, including installation, costs "under \$500" per vehicle, and that monthly service typically runs \$30 to \$35 per month. There is also a lease option, \$55 per month, including installation and service.

In Polk County, Fla., a fleet manager has found that a GPS vehicle tracking system and fleet management software called Networkfleet, provided by Networkcar, San Diego, Calif., has yielded operational efficiencies and safety gains.

Bob Stanton, director of fleet management for Polk County's Equipment Services Division, Bartow, Fla., said that the county has been phasing in the system over the past four years by installing it on all new vehicles. Some 400 of the division's 2,000 vehicles are now equipped with the technology, Stanton said.

The GPS unit in the vehicles transmits data over a cellular network, which are then made available on a Web site that managers access with a user name and password. The system collects and transmits data from a vehicle's engine

SUPPLIERS OF GPS AND FLEET MANAGEMENT SOFTWARE

Here is a list of some providers of GPS hardware and fleet management software, along with their website addresses:

Cartasite, Denver, Colo.

cartasite.com

GeoLogic Solutions, Herndon, Va.

gogeologic.com

Geotab Inc., Burlington, Ont., Canada

geotab.com

GPS Fleet Management, Paradise Valley, Ariz.

gpsfleetmanagement.biz

GPS North America, Langhorne, Pa.

gpsnorthamerica.com

Navtrak, Salisbury, Md.

navtrak.com

Networkcar, San Diego, Calif.

networkcar.com

computer and from the GPS: vehicle location, fuel consumption, mileage, speed, idle-time, and more.

"There is a whole menu of applications that we use it for, it isn't just vehicle location," Stanton said. Last March the county began distributing to managers a report that differentiates between driving hours and engine idling hours, with a view toward raising awareness of idling, discouraging it and lowering fuel consumption.

A speeding report, e-mailed automatically each morning is "one of the real success stories for us," Stanton said. About a year ago the county set a threshold of 70 miles per hour, he said. The system e-mails a speeding report to Stanton, identifying which vehicles exceeded that limit and how many times they did so.

"A number of departments had violators that were, let's say, outside the parameters," Stanton said diplomatically. He forwarded the reports that documented speeding to the appropriate department managers, who discussed the issue with the drivers in question, and the result was a rapid modification in driving behavior.

"I haven't sent a speed report to a department in months," Stanton said. 

