

What you need to know about...

Keeping the fleet moving

MANAGING A VEHICLE fleet can be difficult. Missed deliveries, maintenance down time and even security problems can ruin a fleet's efficiency and cause costly co-ordination headaches. Most fleet managers are being asked to reduce operating costs and can do it by monitoring vehicle performance and changing the processes that waste resources. When communications companies first started experimenting with in-vehicle telematics a decade ago, few fleet managers trusted the mobile technology. Today it's become cheap, efficient and user friendly. Transport Canada views it as an integral part of its intelligent transportation systems strategy.

How it works

Vehicle telematics combines wireless telecommunications with global positioning satellite (GPS) and computer-diagnostics technology. With it, fleet managers can link computer functions to individual cars or trucks, regardless of where each is.

The technology has two basic functions: a locator/director, where managers can monitor all vehicles and their operations en-route using hardware consisting of a simple recording system, without the need for installing an on-board computer; and a diagnostic tool, where vehicle systems, such as oil levels, brakes or communications, are monitored for problems. This hardware is usually linked to a vehicle's existing diagnostic system. Data can be transmitted wirelessly or stored for later downloading.

Both telematics tools ensure that vehicles end up in the right place at the right time, with lower operating costs, providing a higher level of internal and external client satisfaction. Costs for systems depend on the sophistication of the hardware and software and on whether a fleet manager wants the information instantly, which would include airtime costs, or to access it when vehicles return to home base.

Continual monitoring of a vehicle and driver may seem a bit big brotherish, but its value becomes clear as both manager and operator increase efficiency by solving problems early and wasting less time. The locator/director function does for fleet vehicles what cellular phones did for business scheduling. A telematics system can help drivers avoid traffic jams or bad weather, especially in remote regions, and also inform them where the closest gas station, parking lot or hotel is without calling home office.

From a security standpoint, an on-board telematics system can sound an airbag-deployment alert on a centralized monitor and send a faster emergency response. It can also help locate a lost or stolen vehicle.

On the manager's side, telematics record odometer readings, speed, RPMs, fuel consumption and other data relating to vehicle-use efficiency. Analyzing this information can help cut costs as well as improve driving habits.

On-board communications means delivery, invoicing and route changes can be done on the fly. All vehicles in a fleet can be mapped and tracked. Even software updates for on-board computers can be done remotely. From a diagnostics view, no driver has to be told that life is a lot easier with advance warning of mechanical

problems. Breakdowns are the single-biggest drain on fleet efficiency, and most happen because of irregular maintenance. Sensing systems become vital when vehicles are used in highly remote areas or in extreme temperatures. Problems can be detected early and maintenance scheduled before a vehicle gets stuck with a dead battery or overheated engine.

In 1990 Bell developed its Telepod/Autovision system to help cut costs for its fleet of 15,000 service vehicles. Discovering savings of about \$100,000 a year, Bell executives decided to sell this technology through Bell Fleet Solutions.

"There's an element of a 'nanny-cam for grownups' to it, but Telepod/Autovision can produce some significant savings for anyone who manages a fleet," says Jorge Fuenzalida, Bell's practice lead for wireless communications – savings on everything from fuel reduction, with obvious environmental benefits, to invoice reconciliation and maintenance. The system can store information for later downloading or transmit it using Bell Mobility, including a satellite option.

Prices can range up to \$1,375 per vehicle for the Telepod hardware and up to \$50 a month for hosted Autovision software. The next stage, according to Poirier, is a wireless LAN (local area network) option.

An added benefit for users is that most insurance companies offer rate reductions for installing systems (like telematics) that improve vehicle safety and recoverability.

Taxi companies were early adapters of state-of-the-art telematics. Being able to connect cars and customers in the shortest amount of time leads to increased revenues for the company and an obvious boost in client satisfaction.

Delivery companies also found big benefits. When Mississauga-based delivery firm CANPAR wanted to reduce operating costs, it hooked up with Ottawa-based Netistix to analyze vehicle performance with the company's FleetPulse system. The primary goal was to monitor each vehicle's diagnostic system to identify problems before they happened, but after a 10-month trial, CANPAR got unexpected results. "They were able to analyze and correct enough fuel efficiency issues that the money they saved has paid for our charges," says John Woronczuk, Netistix' VP, Marketing and Sales.

Where to buy

Bell Fleet Solutions (www.enterprise.bell.ca) has the broadest array of fleet-management telematics, with an emphasis on tailor-made systems. Netistix (www.netistix.com) and Web Tech (www.webtechwireless.com) are two Canadian companies that focus on on-board tracking and diagnostics. People Net (www.peoplenetonline.com/community/canada.htm) and Gate Space (www.gatespacetelematics.com) are based in the United States but have broad customer experience in Canada. *ML*



www.peoplenetonline.com