to be crucial to realizing fuel and time savings, Horwitz pointed out.

"We provide a subscription-based software platform that allows organizations, without a huge capital investment, to take advantage of technology which was heretofore available only to really big fleet operators and big IT shops," Horwitz said.

Vericom installs a small box containing a GPS chip set and a wireless modem under the dash of each vehicle; a small antenna is mounted inside the windshield. If the fleet wants, it can also equip each driver with a handheld device, such as a Nextel mobile phone, a Blackberry, or handhelds made by Intermec or Symbol Technologies.

Vericom also offers a mobile resource management (fleet management) system that combine GPS, wireless communications and the Internet. Data gathered from vehicle and driver activity is then wirelessly transmitted and translated into reports that are presented on a secure Web site.

A fleet can implement Vericom's GPS strictly as an in-vehicle function, or extend it to a handheld device for drivers whose tasks include some kind of service work or delivery role.

A fleet that operates cement mixers or dump trucks would likely stick with the basic in-vehicle setup, Horwitz noted. An HVAC company seeking to extend its capabilities, possibly transmitting work orders to technicians in the field, and in turn enabling them to interact wirelessly with the home office, would need to incorporate handheld devices into its setup.

Some operations might want handhelds for a portion of their fleet. Horwitz provided a hypothetical example of a computer repair company with 20 technicians working in Manhattan. The technicians move around Manhattan by subway or bus. They can use handhelds, but the company also has 17 panel vans. Management wants to know where the vans are, whether the doors are open, and so on. The basic GPS setup would operate in the vans. "We deliver both solutions," Horwitz said.

Delaware Goes Wireless

Delaware's state fleet invested this year in a system provided by Networkcar, San Diego, Calif., that collects and transmits data wirelessly from a vehicle's engine computer and from a GPS unit, allowing fleet managers to monitor vehicle diagnostics and location information.

Installation on the vehicles began last May and was completed in October, said Terry Barton, Jr., fleet administrator for Fleet Services, Government Support Services for the state of Delaware.

Barton said the department he heads operates a motor pool of 2,000-plus vehicles for lease to state agencies. The vehicles have a GVW of 10,000 pounds or less, and include passenger cars, wheelchair lift vans, pickups and light trucks.

During the period when the system was being phased in, Barton said, he noted a savings of 3 percent to 5 percent on fuel. "We think part of it has to do with the tracking," dissuading drivers from making extra trips, he said.

Barton said Delaware invested in a system for each vehicle for the hardware, plus pays a monthly subscription. (Suppliers' rates typically vary, depending on how many units are being ordered.) The state also paid a per-vehicle fee to Maximus, provider of the state's maintenance management software. Maximus integrated its software with the Networkcar system so that odometer readings could be downloaded from each vehicle, Barton said.

"Part of the reason we selected Networkcar was for the download of the odometer reading," Barton explained. Each vehicle is "pinged" every two minutes for an odometer reading. Networkcar collects that information and it is downloaded each evening to a password-protected Web site for later review by Barton and his staff.

"We were after that kind of technology and the diagnostic information more than the actual tracking," Barton said. Fleet Services keeps vehicles at more than 37 pickup sites around Delaware. "Our guys were having to go out quarterly and chase down odometer readings so that we could keep the maintenance [records] accurate and schedule maintenance," Barton said.

In addition to providing vehicle location, automated odometer readings and integration with the Maximus fleet management software, the Networkcar system sends diagnostic alerts and safety reports, Barton noted.

Potential Add-Ons

While vehicle tracking suppliers tend to structure their offerings similarly because they all depend on the same global positioning system, there are variations and potential add-ons that fleet administrators should explore before making a decision on which system to implement.

Vericom's system, for example, integrates with InterGis routing, scheduling and dispatching software.

Other providers of GPS systems are GPS Systems, Barrington, Ill., and GPS North America, Langhorne, Pa.

GPS Systems offers a global positioning system that includes a per-vehicle fee for the hardware (the GPS software is free) with a monthly tracking and communication fee, said Malcolm Rosenfeld, vice president. He said fleet users include the city of Los Angeles and the Philadelphia water department.

GPS North America is preparing an offering that integrates its system with Garmin navigation devices, said Todd Lewis, president of the company. Expected to be available in March or April 2008, the integration will allow office personnel to send detailed directions to the Garmin unit

The Garmin device will be hardwired to the GPS North America unit, and will send data over the AT&T network.

"If the driver deviates the office can be notified immediately by text message or email," Lewis said.