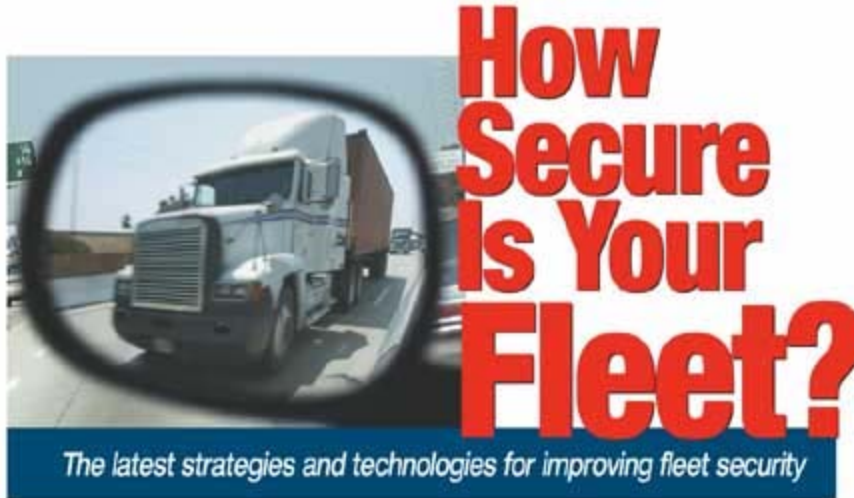


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The latest strategies and technologies for improving fleet security

By Kathy Botticello

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Security is a word that we all have heard a lot since September 11, 2001, in every possible context: from lack of security to tighter security to improved security and so on. Fleet service organizations-utility fleets, municipal and state fleets, oil field service fleets, and private-industry fleets - throughout the United States are not immune to the security concerns facing every industry and every aspect of everyday life. In fact, fleet organizations might be more vulnerable to security risks due to the all encompassing nature of our country's infrastructure and the critical day-to-day role that fleet organizations play within that infrastructure.

Improving the security of fleet organizations already was a growing consideration for both public and private fleet service organizations even before the events of 9/11. Since then, many of the nation's leading fleet organizations - particularly those

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involved with emergency response, hazardous cargo transport, and municipal utility work - have made security one of the top priorities.

Why Fleet Security?

Security is important to fleet organizations for several reasons. The first, and most obvious, reason is to protect the vehicles from theft, damage, and misuse. New monitoring systems make it possible for fleet managers to know within minutes if a vehicle deviates from its planned route, and global positioning system (GPS) technology makes it possible to pinpoint a vehicle's location to aid in vehicle recovery.

Driver safety is another concern addressed through fleet security systems. Many of the new technologies allow vehicle location to be tracked and offer drivers two-way communication at all times. In the event of an accident or an injury, a driver can quickly request assistance and his or her exact location can be determined accurately within minutes. This is particularly important to emergency response fleets, such as law enforcement and emergency rescue services.



Many fleet vehicles are used to transport cargo. Fleet security measures can help protect valuable cargo from theft and potentially dangerous cargo, such as hazardous wastes, flammable liquids, or explosives, from falling into the wrong hands. It also can help protect food product cargo from tampering and contamination.

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Finally, fleet security helps protect the general public from misuse of vehicles or vehicle cargo through possible terrorist or subversive intervention. The Homeland Security Advisory Council has identified fleets transporting hazardous, toxic, or explosive cargo as having the potential to be turned into weapons, making those a high security risk.

Technology Provides Security

Fleet security relies heavily on the use of new technology or new applications for existing technology. Commercial telematics manufacturers, motivated by the emphasis on homeland security, have rushed to develop new and advanced technologies for fleet security applications, including remote vehicle shutdown and biometrics - technology devoted to identification of individuals using biological traits such as those based on retinal or iris scanning, fingerprints, or face recognition. Other technologies include a wide variety of security devices and services such as asset tracking, onboard computers, wireless GPS, remote vehicle control, event remediation, and emergency

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dispatch.

Wireless technology, a common part of our everyday lives, has become integral to improving and maintaining fleet security. This technology is one of the most frequently used for fleet security in all types of organizations due to its wide availability and relatively low cost.

Web-based tracking systems provide Internet capability for companies to track, secure, and monitor fleets. Through integrated systems using cellular, satellite, GPS, and two-way messaging, organizations can use the Internet to monitor fleets at any time via Web-enabled devices or cell phones.

Organizations can be notified of any events or alarms reported by fleet vehicles and can also monitor such events as speeding, door openings, panic, departure, and arrival. In the event of vehicle theft, the location feature of a security system can be used to aid in recovery of the vehicle. Some of these systems can even be used in route monitoring and planning. A technology called *geofencing* allows fleet managers to set geographic parameters for fleet vehicles to operate within. Security notifies fleet management if vehicles venture outside the area established by the geofence.

In addition to tracking and monitoring fleets, a new wireless security and antihijacking system recently was developed that can automatically stop the flow of fuel to the engine of any vehicle deviating from its predetermined route, driving at an unsafe speed, or coming too close to a government building or a public utility. This system will be useful particularly in securing fleet vehicles hauling flammable or hazardous materials that have been identified by the Homeland Security Advisory Council as being at high risk for terrorist attacks due to their potential as weapons. This new system integrates GPS tracking, cell phone data transmission, and a radio-frequency driver verification, making it impossible for the vehicle to be driven by another operator. In addition to vehicles hauling hazardous or toxic cargo, this system could be used to secure public transportation or school buses.

Alarm systems have been around a long time, but technology has greatly enhanced their effectiveness. Local alarm systems are available that serve as a deterrent by sending tamper-detection alerts. Any attempt to tamper with the doors of a vehicle will result in the system sending an alarm to a pager carried by the drivers.

Alarm systems are also used in conjunction with satellite-based vehicle tracking systems to allow fleet managers to remotely

monitor, track, and communicate with drivers. Information updates are sent right to the fleet manager's desktop, where it can then be archived to provide an accurate record of historical data. Some alarm systems can provide remote disabling of vehicles in the event of a security breach due to an onboard tamper detection or invalid driver log-in.

Other existing security measures enhanced by technology are access control and identification. The days of laminated ID cards are gone - replaced instead by smart cards with magnetic strips holding encoded data; biometric identification that includes fingerprint, retinal, or face recognition; and radio frequency technology that identifies and authenticates individuals' identities.

Is Technology Enough?

While advancements in technology and its application are critical, they cannot be the sole source of security. More than 50 leading companies in the fields of mobile resource management, asset monitoring, emergency response, equipment finance, and insurance have formed the Freight Transportation Security Consortium (FTSC). The group, created in late 2001, is responding to the need for comprehensive solutions to the threat of terrorist attacks on the hazardous-materials supply chain.

The FTSC recently announced a joint program by its members to raise awareness among North America's truckers, shippers, insurance companies, and public safety agencies about the effectiveness of modern asset tracking technology and related security services. More than 25 FTSC member companies agreed to provide free trials and tests of security devices, systems, and services to operators of for-hire, private, and government truck fleets with security concerns, especially haulers of hazardous materials, international containers, and food, as well as emergency response vehicle fleets.

Is the Future Secure?

Security concerns will continue to be a top priority for fleet organizations. This is evident in the number of new training and education courses being developed on fleet safety and security. These courses cover topics including fleet, cargo and equipment security, human resources changes in policy and philosophy, disaster planning preparedness, terrorism impact analyses, developing security plans, and training strategies.

Industry analysts predict that replacement hardware will become mandatory for many fleet organizations due to the fact that wireless carriers won't be required to support analog cellular

networks after 2008. Some larger fleet organizations already have begun migrating to digital hardware in anticipation of the changes.

According to a recent report by Allied Business Intelligence Inc., state-of-the-art security solutions still are outside the threshold of most small fleet operators' budgets. As time passes, this technology will become more widely available as prices for hardware continue to drop and the government considers providing subsidies for fleets identified to be at a higher risk, including transporters of hazardous materials, fuel, and explosives.

The Office of Domestic Preparedness recently made nearly \$1.5 billion available to states, localities, and US territories to help state and local public safety and law enforcement personnel pay for planning, training, equipment, exercises, and other costs associated with enhanced security measures.

Of the \$1.5 billion, \$200 million is specifically designated to reimburse the costs incurred by the states and cities to protect critical infrastructure during the heightened threat period. It is likely that a significant portion of these funds will be allocated to fleet security enhancements and technology.

With heightened awareness, and new advances in technology, and education, it looks like the future of our nations' fleets is secure.

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