



Securing The Rails

Eric LaBat 08.29.06, 4:00 PM ET

A global economy requires an efficient and effective transportation system. The ability to quickly and safely deliver goods in a dependable manner is paramount.

We can no longer take issues such as freight security for granted. Given the potential for terrorism, crime, human error and equipment failure, protecting freight is a real and pressing problem that must be addressed. Ever-increasing attention is being paid to the enormous challenge of screening and securing the mountains of cargo moving into, out of and around America every day--as well as the enormous cost.

What is missing from the dialogue is how addressing these security issues can enhance rather than detract from the productivity and effectiveness of the supply chain.

There is no question that improving security is the right thing to do. But there is also no question that poorly planned and executed security changes could harm the very industries and supply chains they are meant to protect. If done correctly, security improvements would help companies improve their bottom lines and improve a key component of the economy.

U.S. railroads are the backbone of the economy. From commodities to finished goods, 42% (and counting) of the nation's domestic freight is traveling by

rail. According to a recent report by the Association of American Railroads, rail freight traffic is booming. Nearly 1.3 million carloads of freight and 1 million intermodal rail traffic units, which are trailers and containers that can be loaded directly on flat cars, were shipped in June. For the first six months of this year alone, the total rail volume was estimated at 867 billion ton-miles, up 2.6% from the same period in 2005.

It is no secret, however, that our rail system is at or near capacity at many critical locations throughout North America. The railroads realize this and are planning to spend an unprecedented \$8 billion this year alone to lay more track and improve the system's efficiency. But with more track will come still more assets and freight to be managed. This is why the sensible overlay of additional security is so critical.

In this age of just-in-time delivery, it is not unheard-of to schedule a container of parts to arrive overnight in order to be on an assembly line later that day. That's smart inventory control. But what happens if trains are routinely rerouted around major urban areas, or if more inspections of cars are required? Significant time, costs and uncertainty would be incurred by everyone involved in the process. An already struggling infrastructure might be severely crippled--not by vicious acts but by the very security designed to prevent them.

We are not, however, in a desperate situation. Technologies exist today to allow both the security needs of society and the efficiency requirements of business to be met in concert. What is needed are more companies to adopt, demand and specify security-friendly, technology-based advances to their inventory management practices.

In rail, the use of technology has progressed far beyond the radio frequency identification device units, which have long been used to track and direct assets in rail yards. Global positioning systems added the next variable, potentially allowing trucks, trailers, railcars and containers to be tracked and pinpointed anywhere in the world.

Now, the industry is on the verge of launching a solution that extends those monitoring capabilities to railcars. Using "telematics," which is the integration of telecommunications and computer electronics, we can track, monitor and control assets with real-time, robust and consistent data reporting via two-way satellite communications.

Such "visibility" goes far beyond the location of the asset and can include a better view of the condition of the car and the items inside. Whether the shipment is toxic chemicals, hazardous waste, sensitive materials, corn, coal, computers or cars, the ability to track, trace and monitor a range of given conditions offers shippers a wealth of information to plan arrivals, unloadings and restockings.

Think of it this way: We can actually arm the rail car to monitor and alert the shipper if anything happens that could

compromise the contents inside, from an unlocked door to a change in environmental conditions--even movement along the wrong track. Shipping rules could also be established, so that a car could not be unlocked until it reached its target destination and the identity of the receiver was verified.

From a business standpoint, companies can make better, faster decisions to manage and protect their shipments by using such solutions. From a homeland security standpoint, it is easy to see how telematics could be easily integrated to enhance security at a regional, national and even global level without slowing down delivery times.

Similar telematics could be integrated into all other types of freight systems and carriers, including trucks, trailers, ships and containers. With the present driver shortage in the trucking industry--turnover has reached 120% annually--telematics can help with driver retention as well as enhance the security of transportation workers. In addition, as container traffic in the U.S. reaches dramatic congestion levels at key locations on the East and West coasts, tracking containers can help make pooling and fleet reduction a reality and help move containers beyond simple security checks at ports.

Details such as location, tire pressure, cargo condition, temperature, engine performance, gas emissions and fuel load could be tracked and evaluated. Sensitive materials could also be easily identified, tracked and traced by authorities more efficiently (and in a more taxpayer-friendly manner). This could help speed the processing of

goods and services at the ports and borders, as well as increase the overall level of security and accountability within the system. At the same time, it would speed up the supply chain and reduce costs incurred through delays.

Business must not look at the topics of freight capacity, efficient supply chain information and homeland security as separate and unrelated issues. Proactive businesses will embrace these new technologies now and work with government to set up sensible solutions to the broader issue of freight security. Waiting for a government mandate will likely lead to confusion and unmanageable costs of implementation. This approach could pose significant and unintended consequences for getting product to market and, ultimately, for a company's bottom line.

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