Brains, Dollars and Technology Equals Security

The U.S. government should fund research into how technology can help improve cargo security.

By Mark Roberti

Jan. 15, 2007—The newly elected Democratic Congress wants to pass a law mandating the inspection of every one of the nearly 20,000 containers entering the United States each day. Some politicians believe this to be the only way to ensure that terrorists don't sneak a weapon of mass destruction into the country. Others, even within the Democratic Party, believe it's a way to bring our ports to a grinding halt.

It seems improbable that every container could be opened and inspected without severely slowing down throughputs at the ports. And opening every container won't ensure perfect security. A radiological bomb could be put in lead shielding and placed inside a wooden box and opened only after the box arrives in a major U.S. city.

Using technology to track cargo is the only way we can increase security significantly without slowing down commerce. Our cover story for the January/February issue of *RFID Journal* magazine looks at the U.S. government's attempts to use technology, including radio frequency identification, to improve security. There have been a number of trials but no concerted, national effort to solve the problem. If the U.S. Congress wants to do something, it should fund a collaborative effort that brings together shippers, carriers, technology providers, academic researchers, law enforcement officials and security experts to determine how technology can be used to increase cargo security cost-effectively.

The first questions that need to be answered are: What combination of technologies—such as RFID, the Global Positioning System and sensors—could be used to give customs officials greater confidence that what a shipper says is in a container is actually in it? And could these technologies be implemented in a way that would prevent terrorists from introducing a container with a weapon in it as a legitimate container, or at least greatly reduce that possibility?

RELATED_ARTICLES Among the other questions that need to be answered are: How can the data associated with shipments be shared securely among shippers, carriers and customs officials? How can we prevent the data from being tampered with? If a container were packed and sealed by a known shipper, would that help improve overall security by allowing customs officials to focus on containers where the shipper is not known, or where the information about what's in the container is incomplete? Can technology enable authorities to identify a container that has been tampered with?

Cost is a key issue. A study of the kind I'm talking about, complete with trials, could cost $10 million. But it could cost billions of dollars to hire people to inspect every container coming into the United States and billions more in economic costs from delays. It's more cost-effective to develop a technology solution—such as low-cost sensors integrated with RFID tags able to communicate with interrogators that, in turn, communicate with GPS systems. By funding research and development, the U.S. government would go a long way toward helping private industry secure the supply chain.

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