Does Obama Have the Vision?

The incoming U.S. President, Barak Obama, has indicated he plans to launch an infrastructure program not seen in the United States since President Dwight D. Eisenhower launched the interstate highway system program in the 1950s. It’s not widely known in America, but that project paved the way (no pun intended) for much of the growth that followed, because companies were able to move goods to market more quickly and

at lower cost.

Obama’s goal is to create jobs and repair the country’s aging infrastructure. Those are important goals, but he needs to do more than that. He needs to upgrade the infrastructure so it’s smarter, safer, cleaner and more efficient. And he needs to make sure the money spent enables businesses to grow, protects the American people from terrorism and other threats, and makes it possible to move more goods to market with less impact on the environment. All of these goals can be accomplished by taking a holistic approach to deploying technology as part of the infrastructure program.

I’m talking about an infrastructure that includes roads, bridges, tunnels, ports and airports, and that goes beyond providing the means to move people and goods. It also monitors traffic patterns, the movement of goods, and operating and environmental conditions, in order to reduce congestion, secure the supply chain and cut pollution.

This is already beginning to happen at the local level. The adjoining seaports of Los Angeles and Long Beach had been operating at maximum capacity for years; as a result, they were choked with trucks lined up to collect and discharge cargo. The cost to business: longer lead times and higher shipping and fuel charges. The cost to the port: lost business, as some shippers chose other ports or planes to avoid delays. The cost to society: greater pollution, because idling trucks belched clouds of fumes into the air.

An RFID system known as PierPASS helped to solve all three of these problems. Trucks were outfitted with active RFID tags, and antennas were placed at all port entry points. When a truck approaches, the system determines whether the driver is authorized to enter, and the check-in process is handled electronically instead of manually, thereby reducing delays. The amount of pollution in the air is reduced by an estimated one-quarter pound for every half hour each truck saves in idling time while waiting to get into the port. And although the port can't get any bigger, more efficient loading and unloading means it can handle more business.
The government could help the port go a step further, by using radio frequency identification to enhance the security of the supply chain and the safety of the American people. The U.S. Transportation Security Administration (TSA) conducted pilots right after 9/11 to determine if RFID could be used to secure shipping containers entering the country. The idea was that companies registered with U.S. Customs could film the loading of a container and place an RFID seal on that container, after which a customs agent could check the seal and, if necessary, use the seal's ID to retrieve the video from the Web. The system not only proved more secure, but also reduced shipping costs, because there were fewer delays at customs, and companies had greater visibility into where containers were located.

If the government were to provide e-seals for all shipping containers, as well as grants to enable the ports in California to expand the RFID system beyond the entry and exit points, and if it were to place interrogators on cranes that move containers (see Dockside Cranes Get Brains), the system could read the seal, ensure the container hadn't been compromised and make sure it ends up on the correct truck. That would make the country more secure, enhance the port's efficiency, reduce costs for businesses and make the United States more competitive in global markets.

The same system could also be utilized to reduce the counterfeiting of goods and improve recalls, because the RFID infrastructure would allow for the greater visibility required for track and trace. Imagine, for instance, pallets of fruit from Brazil or cases of pharmaceuticals manufactured in France being tagged at the source. The serial numbers in the RFID tags could be associated with the serial numbers stored in the e-seals on the containers as they are shipped in. The containers could be tracked as they arrive in the United States, then are put on trucks and hauled to distribution centers. If there is a problem with a shipment of drugs or food, the specific batches with problems could be tracked back to the source.

The same approach could be used to improve efficiencies at airports, land border crossings and other chokepoints within the U.S. supply chain. The additional cost to Obama's infrastructure plan would be small, when considered in the overall scheme of things. And the same tags and readers could be employed to deliver multiple benefits to business and society.

If the above plan is implemented correctly, the United States could come out of the current crisis with a 21st-century infrastructure that would make the country safer, reduce costs for all businesses and make them more competitive, and drive the economic growth that enables the government to begin paying down the money borrowed to pay for the infrastructure upgrade. On the other hand, if it's done the way things are often done in Washington, the infrastructure upgrade will devolve into pork-barrel spending, and the nation instead will wind up with a huge deficit and an infrastructure that can't support economic growth in the future.

Let's hope the new president has the right vision.

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