Driverless Cars Yes, V2I No!

By: Randal O'Toole
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Yesterday, President Obama gave a speech in Virginia calling for mandatory installation of vehicle-to-vehicle and vehicle-to-infrastructure communications in all cars. By coincidence, this week the Association for Unmanned Vehicle Systems International (AUVSI) is holding its annual symposium on autonomous (that is, driverless) cars in California.

V2V allows vehicles to communicate with one another to allow them to avoid accidents, while V2I allows highway infrastructure (such as traffic signals) to communicate directly with motor vehicles. While Obama touts the safety benefits of these technologies, there are at least four reasons why they should not be mandatory.

First, V2V and V2I communications pose serious security risks for travelers and cities. With V2V communications, an automobile that suffers a fender-bender would communicate to all nearby vehicles that they ought to take a different route to avoid congestion.

That sounds good, but what happens when someone hacks the system and puts out radio signals in a hundred or a thousand critical urban intersections that effectively shut down traffic in an entire city? As one expert at the driverless vehicle symposium observed, "just think of the opportunities for chaos!"

Second, V2I communications will allow the nanny state to monitor and control when and where you travel. For example, PC Magazine observes that V2I is "so accurate a revenue-hungry town could write tickets for doing 57 in a 55 zone."

Worse, suppose your state decides to cut per capita driving in half, which isn't far fetched considering that in 2008 the Washington legislature passed a law mandating such a reduction by 2050. With V2I communications, the government could decide you have driven enough and simply shut off your car.

Third, what happens when all cars are dependent on V2I systems that the government can't afford to maintain? The federal government is notorious for funding capital projects and then providing inadequate money to maintain them, and state and local governments are little better.

Finally, V2V and V2I communications will be an unnecessary added expense to auto ownership. The Department of Transportation says it won't even have a draft of rules mandating V2V before 2017, and such rules won't possibly go into effect before 2018. Yet partially autonomous cars

that improve safety by providing steering assistance and collision avoidance are already on the market.

Google, Nissan, and other companies expect cars will be on the market by 2020 that will be completely driverless in many situations. These cars will improve safety using sensors detecting all other vehicles⬀, pedestrians, and other objects around them, yet they won't send or receive any signals that could violate user privacy or allow outside parties to control the cars.

These cars will achieve the same safety benefits claimed for V2V without the expense or security problems. Other manufacturers at the driverless car⬀ symposium say V2I systems would make the problem of computer-driven cars a little easier to solve, but they don't trust the government to install or maintain the systems in a timely fashion.

I strongly support new technologies that will enhance personal mobility as well as new ways of financing roads and other infrastructure that ensure that users pay for the cost of what they use without invading anyone's privacy. V2V and V2I systems offer too many ways to invade privacy and allow government control without providing any greater safety benefits than will come from increasingly autonomous cars⬀.

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