

Cell phones help track traffic flow

An Israeli company says it has developed a system for managing traffic by tracking drivers' cell-phone signals.

Based on the idea that most people keep their mobile phones on while driving, Lod, Israel-based Cellint created the TrafficSense system to detect the cellular signals and use them to create a real-time moving picture of what's happening on the roads.

"This technology is used to optimize road use by detecting incidents and clearing them quickly, and to (ease) traffic congestion," Cellint Chief Executive Officer Ofer Avni told United Press International in a telephone interview.

The service, now used by government agencies and police in charge of managing the roads but eventually destined for use by the public, too, can also indicate traffic speed and travel time between junctions, the company said on its Web site.

Cellint aims to replace road sensors, now in use in many parts of the world. Avni estimated that in the United States alone, billions have been spent on installing road sensor systems.

Many countries are feeling the crunch of congested highways more and more. According to the U.S. Bureau of Transportation, the proportion of people who drive to work is on the rise -- as much as 79 percent. The agency also found that carpooling is becoming less popular: In 1993, 11 percent of commuters carpoled, while in 2003 only 9 percent did so.

Residents of New York City spend as much as one full week out of the year commuting, according to a statement by the U.S. Census Bureau. Other states with long commute times include Maryland, New Jersey, Illinois and California, the statement said.

But road sensors aren't Cellint's only competitor in trying to ease the bottlenecks. Another example of a hi-tech solution to traffic congestion is a Kirkland, Wash., company called Inrix, founded in 2004 by former Microsoft executives.

The U.S. company's software takes data from government agencies, toll-tag readers, cameras, radar units and magnetic sensors embedded in the pavement, then analyzes the information while keeping in mind school calendars, events like concerts and sports games as well as construction schedules to provide not only real-time data, but traffic forecasts, Inrix said on its Web site.

"We're not the only ones" trying to lessen traffic jams by using cellular signals, Cellint's Avni said. There are other systems, "but they are still not accurate and real-time enough to enable road management."

"TrafficSense's accuracy (has been) tested and validated by several customers and state agencies," Avni continued.

In addition to providing information at all times -- not just at 200-meter intervals -- TrafficSense is significantly less expensive, Avni said.

"In Kansas City, for example," Avni said, "they installed sensors on a 70-mile (stretch of highway) for \$15 million. Cellint (could cover) all of the metro area for a lot less money."

In fact, TrafficSense can be cheaper than a sensor system by as much as two orders of magnitude for large orders, Avni said.

For those who worry the technology seems Big Brother-ish, Avni stresses the cellular data is "completely anonymous. It's signaling data without any phone ID."

However, it does require the cooperation of cellular providers, which Avni said Cellint has secured, at least in part. "Some of the companies have agreed, and some won't agree," he said. He added that companies in several countries have agreed to cooperate.

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