GPS, cell phones hooked up to monitor traffic

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Cell phones are often derided for distracting drivers, causing accidents or slowing traffic. But beginning today, cell phones could help speed traffic — or at least give drivers a better idea of how long it will take to get where they're going.

Just before midnight tonight, researchers from UC Berkeley and Nokia will release free software that can be downloaded to Global Positioning System-enabled phones that run on GSM networks such as AT&T and T-Mobile.

The software will transform the phones into devices that are used to monitor and measure traffic — and show real-time traffic data. The system is similar to the Bay Area's 511 system, which relies in large part on FasTrak toll tags.

But because it uses cell phones, it could dramatically improve the accuracy of driving time projections, and allow driving time estimates on less-traveled roads, including surface streets and rural highways, the researchers say.

"This technology has the potential to provide better quality coverage over more area than has ever been monitored before, allowing motorists to make better traveling decisions," Randell Iwasaki, Caltrans chief deputy director, said in a news release.

As the phones — and their drivers — pass locations marked with certain GPS coordinates, they will automatically relay anonymous speed and location information to computers, which will crunch the data, determine speeds and travel times, and send the information to motorists' phones. The information will also be posted online.

Privacy plays a key part in the project, according to the researchers. Safeguards are built into the system to prevent data from being linked to a particular phone. Drivers will also have the ability to turn off the system at any time.

The pilot program, which will allow a limited number of participants to download the software, is supported by the U.S. Department of Transportation and Caltrans. The concept was initially tested nine months ago when students in 100 cars outfitted with GPS phones drove back and forth on a 10-mile stretch of Interstate 880 between Hayward and Fremont.

"Eventually," Alexandre Bayen, a UC Berkeley professor of systems engineering, said in a statement, "anyone in the country will be able to download the free software to transmit and receive traffic data and participate in the creation of a new traffic information system for their city or community."

The traffic monitoring software can be downloaded, and speed and driving time projections viewed, at *traffic.berkeley.edu.*

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