

The License Plate Loyalty Card

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A red 2009 Mercedes S600 pulls into the overflow parking lot of Mall of America, zooming by without notice some light poles with mounted video cameras and some wireless readers. After parking, the driver and two passengers get out and walk into a mall entrance.

When the driver walks into the Nordstrom location, text alerts have told associates that he's the driver of a red 2009 S600. The scanner he walked by recognized his cell phone's unique identifier number as the same one that exited the Mercedes, which had its license plate number automatically logged as well. When he purchases a dress shirt 20 minutes later with his Visa card, the system can now attach a name (and the purchase of that shirt) to that license plate and that cell phone. If that customer happens to use a loyalty card, his complete purchase history is then associated with the car and his phone.

But while there, he also drops by the Macy's at the mall and walks out empty-handed, but the store manager learns why in about two hours. His car is spotted three miles away having driven to a direct Macy's rival and made his electronics purchase there instead.

That scenario is not science fiction. It's possible today using the same license plate reading (LPR) technology that law enforcement has been using for years. The equipment is now available to the general public and market research firms working for major retail chains have already started buying the equipment and testing its limits. They haven't found many.

The devices are small infra-red cameras, selling today for about \$22,000, that can instantly photograph, digitize and look up information about license plates. What makes the retail applications practical are advances in the technology.

About ten years ago, the typical LPR camera and gear cost about \$150,000, was so big that it occupied the full trunk of a police cruiser and couldn't track a license plate when camera-mounted vehicle was moving faster than 5 miles-per-hour, said Andy Bucholz, who designed one of the earliest LPR units and received the first funding to deploy it for law enforcement, courtesy of a contract with the U.S. Department of Justice. Today, Bucholz serves on the board of directors of G2Tactics.

Today, though, that same device can be handheld, costs about \$22,000 and can accurately image the license when driving as fast as 180 miles-per-hour, he said. "That means that you can be driving 70 MPH and pass a car going in the opposite direction at 70 MPH and capture it, day or night."

Police have been using the systems to log where cars are parked and driving all over the country. The idea is that the data is saved for as long as possible. Then, when a major

crime is being investigated, if the detectives are lucky, that data could prove who was where when, long before anyone knew that a crime was going to happen. Murder suspects can deny they ever associated with a victim, only to be confronted with footage of them having repeatedly parked in front of their house six months earlier.

Law enforcement can select an address and look at any cars that were at or near that location during a particular time period and they can also search for a particular car and see every place it was scene. If they're trying to prove an association, they can search for two cars and ask the system if those two vehicles have ever been spotted near each other.

That's all well and good for law enforcement, but how does this play into retail?

The biggest element of the law enforcement use of this equipment are a wide range of databases that feature stolen vehicles, missing kids and all kinds of arrest warrants. Whenever the system sees any plate that is wanted, it sounds an alarm.

Without those databases, the cameras are being sold to the business community for many purposes. Can those databases—which would identify the people associated with specific license plates—be obtained? Not really. States are no longer supposed to provide that information, although some still can be purchased, here and there.

But there are several viable ways that retailers can quickly identify consumer names and associate them with that car. Reading cell phone identification—as described above—is one popular method.

Another approach takes longer, but it's using the process of elimination. First, the mall or store asks for all employees who work there to volunteer their license plate information. It could be done on the pretense of allowing employees into employee-only parking or making sure that their cars are on a do-not-tow list. Once done, they are placed in a database of license plates to be ignored.

That will eliminate a huge number of the cars that are parked regularly. As for the others, time and databases will eventually identify many of them. A blue Honda with license plate A12345, for example, has been spotted eight specific times over the last two months. POS records can look for a match, seeking any customer who made purchases during those particular days and those particular times. Of course, not every one who visits the store will buy every time, but that process of elimination will likely identify quite a few.

How valuable could this be? If a store has its own parking lot regularly scanned (pole-mounted cameras are efficient) and then sends someone to physically scan the parking lots of key competitors, how much would that be worth? What if it told you that customers were leaving your store to go immediately to a rival?

Let's push the envelope. What if you could text message those customers at that moment, offering them an extreme discount to come back?

Not sure if license plates will ever truly become the next loyalty card, but with license plate scanning and wireless devices on the body of most consumers, be prepared to have far more business intelligence options in the next two years.