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Hitching a Ride: Every Time You Take a Drive, the Government is Riding With You, 39 J. Marshall L. Rev. 1499 (2006)

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HITCHING A RIDE: EVERY TIME YOU TAKE A DRIVE, THE GOVERNMENT IS RIDING WITH YOU

BENJAMIN BURNHAM*

I. SMOOTH SAILING

At the end of a long hard work week, you decide to skip out of the office a half-hour early on Friday to get a jump start on the weekend. At 4:27 p.m., you hastily finish up some last minute work, pack up your briefcase, and with a quick glance over your shoulder, you are out the door at exactly 4:30 p.m. You get into your car and onto the highway to start your half-hour commute home. Twenty minutes into your drive, it happens: you hit that inevitable Friday early rush hour traffic jam where traffic is backed up for half-a-mile.

However, unlike the hundreds of cars in front of you waiting to pay the toll, you merely flip your turn signal, move over to the left lane and continue cruising at 60 mph. When you pass the toll booth, you maintain your speed and the transponder attached to your windshield silently debits the toll fee from your registered account. And like that, you have seamlessly bypassed a potentially frustrating delay.

It seems so fast and convenient to use electronic toll collection (“ETC”) rather than the traditional method of paying for tolls with cash. The trend is growing and today there are nineteen states that use some form of ETC and at least one more planning to

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* Juris Doctor Candidate May 2007, The John Marshall Law School. The author would like to thank his family and friends for their patience and support throughout the past three years. He also wishes to dedicate this comment to his mother.

1. Steven Ginsberg, Electronic Toll-Paying Devices Surge in Popularity in Region, WASH. POST, Sept. 6, 2005, at B04. Electronic toll collection transponders are wallet-sized and users can have the toll amount automatically deducted from an account maintained by a credit or debit card. Id.

2. Ten states exclusively use E-ZPass: Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Virginia, and West Virginia, infra note 31; Illinois has I-Pass which is now compatible with the E-ZPass network, Illinois State Toll Highway Authority, http://www.illinoistollway.com (follow “I-Pass” hyperlink; then follow “E-ZPass hyperlink); California has FasTrak, FasTrak: Keeping the Bay Area Moving.
institute the system. But we have all heard the cliché that nothing in life is free. So what exactly is your convenience costing you? Every time you use ETC you are letting the government know exactly where you are at that moment.

Part II of this comment begins by exploring the history of ETC, starting with I-Pass, the ETC system in Illinois. The focus then shifts to the broadest ETC system, E-ZPass, currently covering eleven states. The final portion of Part II discusses the benefits of an ETC system, the type of information being collected, and introduces current laws involving similar electronic interactions. Part III compares the benefits of an ETC collection system with the potential dangers of misuse of the collected information through a comparison to other types of electronic information. Finally, Part V proposes a method to reduce the potential for misuse of ECT through stricter legislation. This comment proposes a requirement that sellers of ETC transponders provide users with information at the time of purchase regarding the type of information collected and how it is protected. This comment also proposes that all legislation include regulations for storing and distributing the gathered data, as well as prohibiting specific uses of that data.


3. Washington will initiate an ETC system upon completion of the Tacoma Narrows Bridge, but once the bridge has been paid for, the system will be removed. Washington State Department of Transportation, Tacoma Narrows Bridge Project, http://www.wsdot.wa.gov/projects/sr16narrowsbridge/tollinfo/ (last visited Aug. 29, 2006).


6. Id. (follow “IAG map” hyperlink). Eleven states currently accept E-ZPass: Maine, New Hampshire, Massachusetts, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and Illinois. Id.; see also infra note 31 (listing the websites for each of the eleven states that currently accept E-ZPass).
II. BACKGROUND

A. I-Pass, The Beginning

In November 1993, Illinois launched its interactive ETC system on the I-355 North-South tollway. The system, called I-Pass, was implemented at nine locations along I-355. The I-Pass infrastructure expanded rapidly, but motorists were not as quick to join in. However, I-Pass gained popularity by introducing I-Pass Express high speed lanes in 1999 and announcing the introduction of 102 new I-Pass lanes at sixty locations along the Illinois Tollway in 2003 and 2004. On January 1st, 2005, toll rates for I-Pass users remained the same while rates for non I-Pass users doubled. A total of 158 toll lanes are currently dedicated to I-Pass users and fifty-four percent of all tolls in Illinois are paid via I-Pass. As of January 31, 2005, the state has issued nearly 1.9 million I-Pass transponders.

8. Illinois State Toll Highway Authority, supra note 2 (follow “I-Pass” hyperlink; then follow “Facts, Figures & History” hyperlink); News Shorts, COMPUTERWORLD, Dec. 6, 1993, at 16. The Illinois Tollway was the most heavily traveled toll road in the United States when I-Pass was launched, averaging over 1.5 million transactions each day. Illinois State Toll Highway Authority, supra note 2 (follow “I-Pass” hyperlink; then follow “Facts, Figures & History” hyperlink). Illinois Tollway ushers in new generation of electronic toll technology, supra note 7, at 1.
10. Illinois Tollway ushers in new generation of electronic toll technology, supra note 7, at 1. I-355 had a total of 17 toll locations when the I-Pass system was launched. Id.
12. Rogers Worthington, I-Pass Technology Getting Up To Speed, CHI. TRIB., Nov. 20, 1997, at 1. Four years after I-Pass launched, less than 40,000 cars had I-Pass transponders. Id.
13. Illinois State Toll Highway Authority, supra note 2. Rogers Worthington, I-Pass Lanes To Register At 55 M.P.H., CHI. TRIB., Sept. 18, 1998 at 1. I-Pass express lanes allow a car to move through a toll plaza at 55 mph, a significant upgrade over the then currently most advanced 15 mph plazas. Id.
17. Id.; see also Patrick Kampert, I-Pass newbie? Veterans share their wisdom, CHI. TRIB., Dec. 26, 2004, at 3A (explaining that the toll increase prompted 500,000 users to purchase transponders between December 26, 2004 and January 31, 2005 increasing the total transponders issued to 1.4 million).
B. E-ZPass, Spreading Like Wildfire

In 1990, seven independent toll agencies\(^1\) created Interagency Group and developed E-ZPass. The purpose of Interagency Group was to utilize improving technology to ease congestion on the member states' respective roads.\(^2\) E-ZPass debuted on the New York Thruway in August 1993 at a toll plaza in Spring Valley.\(^3\) Shortly after that, E-ZPass was installed on bridges and tunnels operated by the Metropolitan Transportation Authority.\(^4\) In November 1998, New Jersey introduced E-ZPass on the Atlantic City Expressway and I-95 Delaware Turnpike.\(^5\) During the first twenty months of operation transponder sales exceeded 500,000 units.\(^6\)

The next big move for E-ZPass was implemented on the New Jersey Turnpike on September 30th, 2000.\(^7\) Total sales exceeded one million units by the end of January 2001.\(^8\) E-ZPass has continued its rapid expansion, adding Virginia in October 2004,\(^8\) Maine in January 2005,\(^9\) New Hampshire in June 2005,\(^10\) and Illinois in September 2005.\(^11\) Today, twenty-one different agencies\(^12\) across eleven states use E-ZPass.\(^13\) As of January 28th,

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18. Inter Agency Group, supra note 5 (follow “About Us” hyperlink).
19. Id.
23. Id.
25. Id.
27. Seth Harkness, Glitches are few with new E-ZPass; The first user zips past a turnpike tollbooth at 12:03 a.m. Tuesday as Maine joins the multistate system, PORTLAND PRESS HERALD (Maine), Feb. 2, 2005, at A1. “[T]he first driver [to use E-ZPass in Maine] entered Lane 4 of the Biddeford toll plaza in a car. Had the car been towing a trailer, the system would have recognized it. The driver exited 11 minutes later in Kennebunk, and was charged 40 cents.” Id.
28. Ginsberg, supra note 1, at B04.
29. John Hilkevitch, I-PASS now works on toll roads in the East, CHI. TRIB., Sept. 27, 2005, at A2. Illinois is still maintaining its I-Pass system independent from the E-ZPass system, but the two systems are completely compatible with each other. There is a 2 state gap between the E-ZPass and I-Pass systems (Indiana and Ohio) where there are no electronic toll collection systems. Id.
30. Id.; see also Inter Agency Group, supra note 5 (follow “Membership”
2005, there were an estimated sixteen million E-ZPass users in the eastern United States.

C. So Fast, So Convenient...

ETC systems, such as E-ZPass and I-Pass, use radio frequency identification ("RFID") chips. As you approach an ETC


32. This date immediately preceded Maine's addition to the E-ZPass network, Harkness, supra note 27, at A1; and was several months ahead of New Hampshire's addition. Ginsberg, supra note 1, at B04.


34. Thomas Wailgum, Is Big Brother Coming To Your Wallet?, CIO MAGAZINE, July 1, 2005, at 1; see also Gene Bylinsky, Hot New Technologies For American Factories; Isn't it obvious by now? Manufacturing and infotech are made for each other. The following pages tell of new electronic ways to track products along the supply chain, upgrade giant machines, and train employees., FORTUNE, June 26, 2000, at 288A (explaining that "Radio frequency' stands for electromagnetic waves of a wavelength suitable for wireless communication. In place of a bar code, an RFID system uses a plastic tag, sometimes as small as two matches laid side by side. Embedded in it is a
tollbooth, the transponder in your car is activated by a toll-lane antenna via radio waves. The transponder then sends a signal back to the antenna with the user's account information. All of the necessary account information is already stored in the transponder, which does not require batteries. The information is then transferred to a central database where the toll is deducted from the driver's pre-paid account. All this transpires without the driver ever bringing the car to a complete stop or fumbling for loose change.

D. . . . And So Beneficial

The benefits of ETC systems are both obvious and substantial. Once in place, an ETC system will not require users to stop or even slow down in some places, greatly reducing traffic congestion. Additionally, ETC saves travel time for motorists and reduces fuel consumption and vehicle emissions. A study conducted in 2001, on behalf of the New Jersey Turnpike

digital memory chip the size of a pinhead.

35. Howstuffworks, How E-ZPass Works, http://www.howstuffworks.com/e-zpass.htm (last visited Aug. 29, 2006); see also Bylinsky, supra note 34, at 288A, (activating RFID tags can be done from distances as great as 100 feet, while reading as many as 50 tags per second).


37. Id.

38. Bylinsky, supra note 34, at 288A. When the transponder gets within range "[a] transmitter sends a burst of radio waves through the antenna to the chip inside the tag to read the information stored in it, to change the information, or to impart a new message." Id. The RFID tag then uses its own internal antenna to transmit information back to the transmitter. Id. "Most RFID tags are 'passive' in the sense of having no batteries or power source; information from the chips rides on signals bounced back to the dish antenna." Id.

39. How E-ZPass Works, supra note 35; Bylinsky, supra note 34, at 288A. "From the dish antenna, the data flow[s] through an electronic reader, which decodes the tag's ID and other information and sends it on to a host PC or workstation, where it can be viewed on a screen." Id.

40. Illinois State Toll Highway Authority, supra note 2. Seventy-five percent of people who use I-Pass have their account set for automatic credit card payment. Id.

41. See individual state E-ZPass websites, supra note 31 (listing the different maximum speed limits for each respective state's ETC lanes).

42. Shawne K. Wickham, E-Z Pass: a primer; Pricey system will ease traffic flow, but detractors fear privacy backlash, UNION LEADER (Manchester, NH), Mar. 20, 2005, at A1. Albert Almasy, the E-ZPass program manager for New Hampshire noted that "E-ZPass can process more than 1,300 vehicles per hour in dedicated lanes, compared with the 450 vehicles a toll attendant can handle." Id.

43. E-ZPass New Jersey Customer Service, supra note 31, (follow E-ZPass Information hyperlink; then follow "Benefits" hyperlink) (last visited Aug. 29, 2006); see also Ginsberg, supra note 1 ("The results of increased usage of E-ZPass are 'better operations of roads, drivers are certainly not sitting in traffic as much, and they're not creating more pollution or air quality issues.").
Authority, revealed substantial benefits in savings to all motorists, concluding that motorists save an estimated $27 million annually.

Understanding the benefits of ETC systems does not require complex formulas. These benefits may be observed by looking at individual ETC users and their reactions to electronic toll collection. For example, John Nelson, a Virginia citizen, has used his E-ZPass-compatible Smart Tag ETC for over a year and comments: "[People] that regularly take the toll road, I don’t understand why they wouldn’t get a Smart Tag... It’s better than being stopped at toll plazas [and] waiting for a guy who doesn’t have the right change." When E-ZPass transponders went on sale in New Hampshire on June 20, 2005, crowds of people were waiting for the doors of the service center to open. New Hampshire resident Betty Scanlon wanted to sign up for her transponder after riding with an E-ZPass user: "We rode with our daughter from D.C. to New York and zoom — it was great."

E-ZPass is also popular with businesses that need to spend a good deal of time on the road each year. When E-ZPass was introduced in Maine, Dan Lord, who drives 40,000 miles each year, was excited about the ability to keep his trucks moving. Both private individuals and businessmen alike did not need any fancy studies to realize that "[it’s about the time.... Time is money."

E. It Also Does What?

ETC user accounts contain personal information such as the user’s name, billing address, and credit-card number. While

44. Operational And Traffic Benefits Of E-ZPass To The New Jersey Turnpike, Aug. 20, 2001, http://www.state.nj.us/turnpike/execsum.pdf (last visited Aug. 29, 2006). The New Jersey Turnpike Authority hired Wilbur Smith Associates to determine the extent and benefits of implementing the E-ZPass system in the state of New Jersey. The study made the following specific findings: (1) the total annual time savings for weekday commuters was 1,344,000 hours for E-ZPass users and 750,000 for Non E-ZPass users, and (2) about 1.2 millions gallons of fuel is saved as a result of shorter lines at toll plazas. Id.
45. Id. The formulas are merely designed to quantify a dollar amount equivalent of time or energy saved by motorists using ETC technology. Id.
46. Virginia’s ETC system is called Smart Tag and is compatible with the entire E-ZPass network. Smart Tag, E-ZPass Virginia Service Center, supra note 31.
47. Ginsberg, supra note 1.
49. Id.
50. Id.
51. Harkness, supra note 27.
52. Id.
53. Wickham, supra note 42.
there are always concerns that this information could fall into the wrong hands, there is another, more hidden type of information being extracted. Every time an ETC user goes through a toll booth, the transponder sends the day, time, and tollbooth location to a central computer. The primary thing to keep in mind with an E-ZPass is basically you’re enabling a tracking system.

I-Pass information is allegedly stored for only two years in Illinois, and is not accessible without a subpoena. However, the I-pass transponder agreement that a user signs is more relaxed, making no mention of a subpoena requirement. The New Jersey legislature recently amended existing legislation to also require a subpoena for access to information gathered by E-ZPass. However, neither the Illinois I-Pass nor the New Jersey E-ZPass websites make any reference to the existence of such legislation. Even with the subpoena requirement, it would not be difficult for ETC information to be accessed during the course of any type of legal proceeding. In fact, the number of requested subpoenas for E-ZPass records doubled between 2003 and 2004 in New York.

People who opt to use ETC systems often fail to realize the long-term surveillance consequences. Additionally, users are blinded to the sacrifices they are making for the sake of convenience because states are acting aggressively to increase the use of ETC systems. Incentives, such as discounts on transponders and discounted toll rates, provide

54. Data Tracks; Big Brother may not be watching but he knows where you’ve been, CHI. TRIB., May 11, 2003, at C1 [hereinafter Big Brother].
56. See Big Brother, supra note 54 (discussing information provided by an unnamed spokeswomen for the Illinois State Toll Highway Authority).
57. Id.
60. See Tresa Baldas, Lawyers Debate High-Tech Evidence, LEGAL INTELLIGENCER, Aug. 25, 2004, at 4 (explaining that ETC records are not only used in criminal cases, but also divorce proceedings and custody disputes).
61. Id. The actual number of requests went from 128 to 251. Id.
63. Editorial, E-Z Politics; Toying with toll takings, UNION LEADER (Manchester, NH), June 27, 2005, at A8. When E-ZPass was introduced in New Hampshire, new transponders were sold for $5 which is substantially below cost to the state. Id.; Paula Tracy, Transponder discounts to last few more weeks, UNION LEADER (Manchester, NH), July 14, 2005, at A17. The retail price of the transponder is twenty-four dollars. As of July 14, 2005, New Hampshire had lost over $1.5 million dollars by selling E-ZPass transponders below cost. Id.
64. Rayno, supra note 49, at A1. E-ZPass transponders purchased in the
people with obvious reasons to get involved with ETC systems without regard for the potential consequences. Yet while states are quick to offer incentives to potential users, they are slow to provide adequate information regarding the pros and cons of ETC systems.\(^{65}\) "The big problem is that all of these technologies are being used to create a surveillance society.... Even as we're creating this surveillance monster in our midst, we are not creating the chains for the monster, which is law."\(^{66}\)

III. ANALYSIS

A. Information Collected From Cellular Telephones is Used Extensively by Law Enforcement Officials

As ETC systems grow, courts will begin to use the information gathered for its tracking ability,\(^{66}\) similar to the way cell phones are used.\(^{66}\) For example, in *United States v. Jackson*,\(^{69}\) the court held that evidence obtained by a warrant authorizing electronic surveillance by interception of cellular phone calls was constitutional,\(^{70}\) despite noting the potential for abuse in proceedings involving the government.\(^{71}\)

Even though cellular phones are not traditionally considered tracking devices, federal and state officials are forcing cellular companies to give up their customers' personal data with increasing frequency.\(^{72}\) Furthermore, government officials have
been able to use cellular phones as tracking devices even when the cellular phone owner is not using the phone to make calls.

In *United States v. Forest*, the Drug Enforcement Agency tracked a suspect’s location by dialing his cellular phone and hanging up before the suspect answered. The *Forest* case dealt with issues involving Title III of the Omnibus Crime Control and Safe Street Acts of 1968. This Act allows any “aggrieved person to move to suppress the contents of any illegally intercepted wire or oral communication.” There are three different types of communication under the act: wire, oral, and electronic communication. The *Forest* court held that cell-site data was

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73. 355 F.3d 942 (6th Cir. 2004).

74. See id. at 947 (describing how the DEA agent lost visual contact on the suspects so that to reacquire the suspect’s position the “DEA agent dialed [the suspect’s] cellular phone (without allowing it to ring) several times that day and used Sprint’s computer data to determine which cellular transmission towers were being ‘hit’ by Garner’s phone. This ‘cell-site data’ revealed the general location of Garner.”).


76. 18 U.S.C. § 2518(10)(a). “Aggrieved person” is defined as “a person who was a party to any intercepted wire, oral, or electronic communication or a person against whom the interception was directed,” 18 U.S.C. § 2510(11).

77. “Wire Communication” is defined as:

[A]ny aural transfer made in whole or in part through the use of facilities for the transmission of communications by the aid of wire, cable, or other like connection between the point of origin and the point of reception . . . furnished or operated by any person engaged in providing or operating such facilities for the transmission of interstate or foreign communications or communications affecting interstate or foreign commerce . . . .

Omnibus Crime Control and Safe Street Acts, 18 U.S.C. § 2510(1). “Oral Communication” is defined as:

[A]ny oral communication uttered by a person exhibiting an expectation that such communication is not subject to interception under circumstances justifying such expectation, but such term does not include any electronic communication . . . .

18 U.S.C. § 2510(2). “Electronic communication” is defined as:

[A]ny transfer of signs, signals, writing, images, sounds, data, or intelligence of any nature transmitted in whole or in part by a wire, radio, electromagnetic, photoelectronic or photooptical system that affects interstate or foreign commerce, but does not include—

(A) any wire or oral communication;

(B) any communication made through a tone-only paging device;

(C) any communication from a tracking device (as defined in section 3117 of this title); or

(D) electronic funds transfer information stored by a financial institution in a communications system used for the electronic storage and transfer of funds;

clearly not within the realm of wire or oral communication. The court took the analysis one step further by holding that the cell-site data gathered did not qualify as electronic communication at all, and therefore, was not protected under the Act.

B. ETC Based Tracking Will Likely be as Unprotected as Cellular Phone Data

Based on the courts' views in Forest and Jackson, it is highly unlikely that information gathered through an ETC system will be found to be a form of communication protected under the Omnibus Act. The Forest definition of communication would not include ETC gathered information because it is merely data that is automatically transferred between machines, without human interaction.

Furthermore, an ETC transponder sends information automatically in response to radio waves beamed by an antenna. No action is required by the user: indeed, this is one of the fundamental advantages for the user. But what about the rest of the time? Since an ETC transponder can be automatically accessed by any programmed antenna that transmits the appropriate radio waves, a transponder could also transmit information at times not expected by the user. "Unbeknownst to most E-ZPass subscribers, antennas placed along twenty miles of the New York State Thruway and the New Jersey Turnpike have been quietly picking up their I.D. numbers and clocking their speed and location." Similarly, the Illinois State Toll Highway Authority has created a system that will "project travel times by tracking how long it takes vehicles equipped with I-PASS transponders to travel between toll plazas and interchanges."

The government, of course, defends this action by claiming that the purpose of installing additional antennas is to track

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78. Forest, 355 F.3d at 949.
79. See id. (explaining that cell-site data is not a form of communication at all because it is not a message exchanged between individuals but rather is data sent from a cellular phone tower to that cellular provider's computer). Cf. United States v. Meriwether, 917 F.2d 955, 960 (6th Cir. 1990) (holding that information sent via a pager was an electronic communication as it is a message exchanged by individuals).
81. Forest, 355 F.3d at 949.
82. Id.
84. Id.
traffic patterns and that collected information is deleted once the patterns are created.87 But the fact remains that the technology to collect such information exists, and is being implemented; at some point the technology may start to make its way into "other" government uses.88 Should policies change, all of the hardware required to track every ETC user is already installed, and a complete and accurate tracking network would instantly exist.

C. What Fourth Amendment?

Courts have thus far been able to circumvent Fourth Amendment89 illegal search and seizure arguments against the use of car tracking devices on the highways. The Supreme Court has supported the use of such devices in cases such as United States v. Knotts,90 ruling that "[a] person in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."91 In Knotts, police suspected that the defendant was using chloroform to make illegal drugs.92 Without obtaining a warrant, the police arranged for a container of chloroform with a hidden tracking device93 to be sold to the defendant and then used it to follow him to a remote cabin.94 The police subsequently obtained a search warrant and, after finding a methamphetamine laboratory in the cabin, arrested the defendant.95 The defendant unsuccessfully argued that the warrantless use of the tracking device constituted a search in violation of the Fourth Amendment.96

87. Id.; Vanamee, supra note 85.
88. Vanamee, supra note 85. "First, when they [the government] want to implement the technology, they promise they won't use it for anything else. But once they start collecting this kind of data, sooner or later it's too hard to resist." Id.
89. The Fourth Amendment protects “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures . . . . U.S. CONST. amend IV.
91. Id. at 281; see also Cardwell v. Lewis, 417 U.S. 583, 590 (1974) (stating that because the function of an automobile is transportation a car does not have the ability to escape public scrutiny as it travels on public roads and everyone is in plain sight).
92. Knotts, 460 U.S. at 278.
93. Id. at 277. The tracking device used was a “beeper”; a battery operated transmitter that would periodically emit a signal which could be followed by the police by using a radio receiver. Id.
94. Id. at 278.
95. Id. at 279.
96. Knotts, 460 U.S. at 276. The court held that governmental surveillance by use of a beeper simply amounted to the following of an automobile, which the court has already expressed carries a diminished expectation of privacy. Id.; see also United States v. Gbemisola, 225 F.3d 753, 759 (D.C. Cir. 2000) (holding that the warrant requirement of the Fourth Amendment is not
The Supreme Court clarified its ruling in *Knotts* a year later when it decided *United States v. Karo*.\(^9\) The facts in *Karo* were almost identical to those in *Knotts*: law enforcement tracking chemicals suspected for drug use without a warrant.\(^8\) However, the Court in *Karo* drew a slight distinction because the government used the tracking device to determine when the chemicals were physically inside the defendant's home.\(^9\) Therefore, the issue became whether the use of warrantless electronic surveillance to discover information from a place not open to ordinary visual surveillance violates the Fourth Amendment.\(^10\) The Court held that, unlike *Knotts*,\(^1\) such surveillance did offend the Fourth Amendment\(^2\) and that the home and other private enclaves are protected against any intrusion, physical or electronic.\(^3\)

The general rationale in favor of permitting electronic surveillance on the roadways is that anyone on the public way cannot have a reasonable expectation of privacy because,
theoretically, they will always be seen by someone. The fact that an electronic device is used does not offend the Fourth Amendment because the user is out in public and the surveillance could have been done with the naked eye. The argument, in essence, is that the law enforcement officer is using a tool, similar to a flashlight or binoculars, to augment his natural senses. As technology improves, law enforcement officials will have an increasing interest in using more advanced methods to monitor criminal activity. The Court's decisions imply that not allowing law enforcement to take advantage of new technology would "confine law enforcement to primitive means for detecting and investigating evidence of crime." However, once a sophisticated network of roadway antennas is implemented, the tracking ability of each individual law enforcement officer will become superhuman rather than merely enhanced.

Based on Supreme Court holdings, the only area where a person is truly safe from surveillance is within his own home. But with more cars than ever on the road, individual citizens are arguably the most mobile they have ever been. While current ETC systems do not boast the power of GPS tracking systems, the situation could change very quickly. Because ETC systems are meant to assist in travel outside the home, any use of information gathered by them is not hindered by the Fourth Amendment under Supreme Court precedent.

D. ETC Information Will Begin Creeping Into Civil Cases

The ability of courts to use information gathered from ETC systems is not limited to criminal issues. The average citizen

104. Cardwell, 417 U.S. at 590; Duva, supra note 72, at 176-77.
105. Knotts, 460 U.S. at 284; Gbemisola, 225 F.3d at 759.
106. Duva, supra note 72, at 177. The argument fails because it presumes that electronic tracking devices "do not function on their own but instead imbue law enforcement officials with the super-human ability to conduct continuous visual surveillance on an individual for a potentially infinite time period." Id.
108. Blitz, supra note 103, at 1385.
109. See Kyllo, 533 U.S. at 40 (declaring that the Fourth Amendment draws "a firm line at the entrance to the house").
110. Duva, supra note 72, at 174.
111. Id. at 171.
113. See Jackson, 207 F.3d at 910 (using ETC information in the context of a large conspiracy to distribute cocaine); Forest, 355 F.3d at 942 (in the context of a conspiracy to distribute cocaine as well as unlawful possession of firearms); Knotts, 460 U.S. at 276 (in the context of a conspiracy to manufacture controlled substances); Karo, 468 U.S. at 705 (in the context of a conspiracy to possess cocaine with intent to distribute as well as the
may not realize until it is too late that information gathered by
ETC is fully accessible in civil disputes. Recall that the
"protective" legislation guarantees that ETC information will not
be released without a subpoena. However, there is no distinction
as to what sort of court order or subpoena will suffice and it is
certainly not limited only to law enforcement and/or criminal
matters.

ETC information is especially popular in family law cases,
such as divorces or custody battles. The information is not used
in a traditional tracking sense, but rather to identify exactly
where a particular person was at a particular time. For example,
in a custody dispute, "when a guy says 'Oh, I'm home every day
at five and I have dinner with my kids every single night' you
subpoena his E-ZPass and you find out he's crossing the bridge
every night at 8:30. Oops!" Similar measures can also be used to
help establish that a person is cheating on their spouse based on
their driving patterns. These sort of civil cases are not unusual
and certainly do not involve criminal matters, yet personal privacy
information is readily accessible to either party by simply
obtaining a court order.

E. How Far Can It Go?

As we continue to accept newer and more sophisticated
surveillance measures for seemingly legitimate reasons, we
continue to slide down a slippery slope. Eventually, these same
measures may be used in manners of lesser importance such as
ordinary law enforcement of minor law infractions.

For example, in California Governor Arnold Schwarzenegger
is encouraging the state to consider taxing drivers based on the
number of miles they drive. To become operational, the proposed

underlying offence of possession of cocaine with intent to distribute).
114. Big Brother, supra note 54.
115. Id.; see also, Baldas, supra note 60, at 4 (showing how both criminal and
civil attorneys are utilizing new sources of electronic data from ETC systems
to prosecute and support legal claims).
116. Baldas, supra note 60, at 4. Tollbooth records are "hidden gems" and
especially useful to catch people in lies, damaging their credibility with the
court. Id.
117. Id.
118. Wickham, supra note 42.
119. Baldas, supra note 60, at 4; see also, John Schwartz, This Car Can Talk.
What It Says May Cause Concern., N.Y. TIMES, Dec. 31, 2003, at 1 (explaining
how OnStar automobile security systems will release location data about
customers because they have "no choice but to be responsive to court orders").
120. K.A. Taipale, Technology, Security and Privacy: The Fear of
Frankenstein, the Mythology or Privacy and the Lessons of King Ludd, 9 INT'L
J. COMM. L. & POLY 8, 8 (Winter 2004-2005).
121. Id.
122. Sharon Bernstein, Mileage Tax Idea Rife With Potholes; Pay-by-distance
tax system would probably use a tracking device allowing the government to accurately charge its drivers for the miles traveled.\textsuperscript{123} If the "mileage tax" were to be implemented in California, it would give the state free reign to create a perfect tracking network for every car registered in the state.\textsuperscript{124} This network would be a complete version of the one currently being created by state governments in New York, New Jersey, and Illinois to conduct traffic pattern studies via ETC transponders.\textsuperscript{125}

There is another fear arising from the use of ETC information gathered by the state: automated speeding tickets. Ever since ETC became popular, people have discussed whether the system would ever be used to mail speeding tickets to users as a consequence of the toll system tracking their travel time between tollbooths.\textsuperscript{126} Right now, it seems that the stories describing such use are little more than urban myths. There have not been any proven instances of ETCs being used in this manner.\textsuperscript{127} However, the primary concern is not necessarily what is happening now, but the potential for what could happen in the future.\textsuperscript{128} If left unfettered, ETC could track individuals with remarkable accuracy and, when combined with other sources, it "should be [ultimately] possible to achieve perfect law enforcement, a world in which no transgression goes undetected and, perhaps, unpunished."\textsuperscript{129}

\textbf{F. Just Another Piece of the Puzzle}

Even if an individual does not believe that government tracking of a driver's movements through ETC systems is that invasive, there are bigger implications. There is clearly an inverse relationship between improving technology and loss of privacy.\textsuperscript{130}

\begin{itemize}
\item \textit{driving is a hot topic among experts, but motorists want it pulled over}, L.A. TIMES Nov. 22, 2004, at B1.
\item \textsuperscript{123} \textit{Id.}
\item \textsuperscript{124} \textit{Id.}
\item \textsuperscript{125} Vanamee, supra note 85; Hilkevitch, supra note 86, at 6.
\item \textsuperscript{126} Bill White, \textit{Diabolical Plot To Catch Speeders?}, MORNING CALL, (Allentown, PA) Sept. 18, 2000, at B1. A trucker claimed he received a speeding ticket in the mail based on his travel time between E-ZPass interchanges. \textit{Id.} Additional stories have been told about tickets issued in Pennsylvania because "the time between when they got their Turnpike toll ticket verse when they paid at the exit was too short and, therefore, they had to be speeding." \textit{Id.} Illinois tollway executive director Jack Hartman has said that data gathered through I-Pass would never be used for speeding enforcement. Hilkevitch, supra note 86, at 6.
\item \textsuperscript{127} \textit{Id.} No state police officials have heard of tickets being mailed out to ETC users for speeding that was recorded based on their time between toll interchanges. \textit{Id.}
\item \textsuperscript{128} Vanamee, supra note 85.
\item \textsuperscript{129} A. Michael Froomkin, \textit{Symposium: Cyberspace and Privacy: A New Legal Paradigm? The Death of Privacy?}, 52 STAN. L. REV. 1461, 1470 (2000).
\item \textsuperscript{130} See id. at 1469-1501 (discussing whether the rapid growth of "privacy-
When ETC information is combined with other highly unregulated sources of personal data, such as ID swiping, financial data collection, or online web browsing, suddenly there is a database of what someone buys, how he spends his free time, and where he drives. And what if the government decides to create a National Identification System? Such a program is already in the making and, in its basic form, contains personal information from a combination of at least five government data-collection systems.

A more complete national data system than an informal National Identification System could include health or travel records as well as numerous other types of information. Should such a system spring into existence, it is very likely that information from ETC databanks would be included.

131. See John T. Cross, Age Verification in the 21st Century: Swiping Away Your Privacy, 23 J. MARSHALL J. COMPUTER & INFO. L. 363, 363-67 (2005) (discussing the large amount of information contained on driver's licenses which are swiped by both law enforcement as well as private businesses with little or no regulation as to what the information can be used for).

132. See Froomkin, supra note 129, at 1461 (explaining how almost every personal transaction involving money will create a data set which private businesses collect for various reasons). The impact can be seen by the fact that "[a] single firm, Axiom, now holds personal and financial information about almost every United States, United Kingdom, and Australian consumer." Id. at 1473.

133. See id. at 1486-87 (discussing how internet "cookies" can be embedded with personal user data and then used to create a profile of the websites any particular individual may visit. For example, an online newspaper may use cookie technology to keep a log of the articles a person reads, and over time create a profile of the user's interests. Additionally, these cookies can be shared between different websites and a more comprehensive report on the user easily created. Id. "Cookies, however, are only the tip of the iceberg. Far more intrusive features can be integrated into browsers . . . . In the worst case, the software could be configured to record every keystroke." Id. at 1487.

134. See Sobel, supra note 62, at 333 (analyzing the impact of a nationwide identification database on individual privacy).


136. Id. at 340. "[A] formal NIDS [National Identification System] would contain birth certificate, citizenship, school, draft, military service, tax, Social Security, death records and additional types of data." Id.
IV. PROPOSAL

More and more motorists are purchasing ETC transponders to reap the benefits of ETC on a daily basis. These purchases are often done online at individual state websites where no information is provided regarding how an ETC transponder could be used for something other than as a toll paying device. Simply providing notice about the information gathering capabilities of an ETC transponder would allow prospective users to make an informed decision and make privacy concerns less of an issue.

However, even if some people consent to the potential loss of privacy from ETC systems, states should go one step further and adopt or modify legislation addressing ETC information. This legislation should deal specifically with information gathered from ETC devices, and enumerate how such information can and cannot be used.

A. Why the Obvious Just Won’t Work

The most obvious solution is also the easiest: states should provide information on their websites about how information gathered via ETC systems will be protected from unauthorized use. Then, the fully informed consumer is free to decide whether or not to use ETC.

This solution poses two main problems. First, states are trying to increase ETC use and, therefore, would not want any information about ETC systems posted to the public that would potentially deter increased use. Armed with perfect information, American consumers may choose to avoid technology that allows

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137. Illinois State Toll Highway Authority, supra note 2; Kampert, supra note 17, at 3A; E-ZPass Begins on Maine Turnpike Tuesday, supra note 33.
138. See Illinois State Toll Highway Authority, supra note 2 (explaining that over 70,000 I-Pass transponders have been sold online since June 18, 2003, when internet sales became available); see also supra note 31 (explaining how each state included in the E-ZPass network allows a person to sign up for an ETC account and transponder over the internet). To order online a person has to supply personal information such as name, address, phone number, and driver’s license number. Id. In addition, vehicle information is required to link the car with the users account and credit-card information is required for billing. Id. Most of the individual state websites do have a “privacy policy” or “privacy information” hyperlink. Id. However, these hyperlinks only provide privacy information concerning personal information entered through the state website. Id. There is no information on any of the individual state websites regarding how personal information will be gathered, stored, or used by the government once the ETC account is created. Id.
139. Legislation must provide further safeguards because current “accepted” uses of ETC information may change. Vanamee, supra note 85. Also, consumers may not realize the loss of privacy when ETC information is combined with other sources. Sobel, supra note 62, at 333.
140. See supra notes 63-64 and accompanying text (analyzing the impact of discounted toll rates and ETC transponders).
Hitching a Ride

their movements to be tracked. The second problem is that there are currently so few laws governing ETC information that the states would be providing a hyperlink to a blank page. While increasing consumer awareness about privacy concerns with ETC systems is of crucial importance, unless those concerns are addressed through legislation, states will be unable to provide any favorable information.

B. Electronic Information Law Must Adapt in Accordance With New Technology

As technology improves, there are an increasing number of electronic only interactions that do not require conscious human action. These interactions are not adequately protected because courts have held that the transfer of electronic data is clearly not wire or oral communication. Because of the courts' modern interpretation of Title III of the Omnibus Crime Control and Safe Streets Act of 1968, it falls to the legislature to amend current definitions under the Act to protect ETC information.

It is unlikely that ETC information will ever fall within the definitions of wire or oral communication. The current definition of electronic communication does include the transfer of data by radio waves, which would seem to include ETC information. However, “communication” is not defined by the Act

141. See Moon Ihlwan & Andy Reinhardt, “Working Late’ Won’t Work Anymore”: New services can track you — or your loved ones — by cell phone, BUSINESS WEEK, Oct. 31, 2005, at 40 (reporting market research that less than 20% of Americans are willing to pay for the ability to track others by cell phone). The research study did not make a distinction whether this reluctance for cell phone tracking technology was based on financial or privacy concerns. Id.

142. See Baldas, supra note 60, at 4 (discussing how E-ZPass records are fitting into the “surveillance monster” technology is creating and how privacy law is not keeping pace).

143. ETC is a perfect example: no human action is required to activate the transponder and transfer the account information necessary to pay tolls. Wailgum, supra note 34, at 1. Cell site data also falls under this category when the signal from the cell tower to the receiving phone is tracked making it irrelevant whether the person being tracked ever answers the cell phone. Forest, 355 F.3d at 949. Internet “cookies” also record and track previous human interactions to later be used for electronic only communications. Froomkin, supra note 129, at 1486.

144. See Forest, 355 F.3d at 949 (holding that government use of cell site data to track a suspects location was not protected as a form of electronic communication under the Omnibus Crime Control and Safe Streets Act of 1968).

145. Id.

146. Id.

147. Id.
and current interpretation limits its application to instances where data is exchanged between individuals. 148

To eliminate this problem, Congress should define communication broadly to include automatic transfers of data such as ETC information. 149 For example, "communication" could be defined as any information or data transferred to a person or electronic device by any wire, oral, or electronic method, whether originating from a person or electronic device that is either immediately interpreted and understood or stored for any future use. Such a broad definition would not impair law enforcement officials as ETC and other electronic information could still be used for surveillance purposes after a warrant is obtained. 150 At the same time, ETC users could rest assured, knowing that law enforcement will not arbitrarily track them without a warrant.

C. Is the Court's Definition of "Reasonable"
Really All That Reasonable?

The central purpose of the Fourth Amendment is to protect people from "unreasonable searches and seizures." 151 The Supreme Court has been adamant about protecting individual privacy rights inside the home, 152 but the "reasonable expectation of privacy" test currently applied outside the home is outdated. Again, technological advances provide a reason to reexamine the reasonableness of privacy expectations.

Most people would probably agree that it is reasonable to expect to be seen by someone when driving. However, being seen in passing is quite different than the government following your every move, and probably does not comport with most people's definition of reasonableness. That is, an ETC user would reasonably expect that his transponder will be accessed when

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148. Id. Cf. Meriwether, 917 F.2d at 960 (stating that unauthorized interception of a pager message that included transmission of alphanumeric characters would be illegal because it is communication between individuals).
149. This definition of communication would clearly include electronic interactions that happen without conscious human interaction such as ETC, and would further protect the information once it is stored in a state's databank.
150. See Jackson, 207 F.3d at 914 (holding that a warrant that authorized roving surveillance by intercepting the defendants cellular phone calls was constitutional); see also Bianco, 998 F.2d at 1121-22 (holding that roving surveillance is constitutional without specifying when or where such surveillance is to take place).
151. U.S. CONST. amend IV. The purpose of the Fourth Amendment is "to assure that people walking down a street, for example, could not be stopped randomly and searched by a government official who had no reason to suspect them of wrongdoing. Blitz, supra note 103, at 1356.
152. See Karo, 486 U.S. at 714-15 (holding that details of the home are protected from any type of privacy intrusion if those details could not otherwise be obtained by ordinary visual surveillance).
traveling through a toll plaza and paying a toll but would not reasonably expect to have his transponder accessed to pinpoint his location at any other time. Therefore, absent special circumstances, the reasonable expectation of privacy test should be modified to take the increasing power of mass electronic surveillance into consideration.

D. State Legislation Regarding ETC Information Should be Simple and Straightforward

The final measure that should be taken to protect ETC information is definitive action on the part of individual state legislatures. Since ETC serves a functional purpose — paying a toll — some records are necessary for billing purposes. Without these records the state's only evidence that a user was correctly billed would be lost. However, this does not mean the records need to be stored forever. I-Pass records in Illinois are allegedly stored for only two years, but even that is unnecessarily long. Anywhere from six months to a year would be adequate, and legislation could require that any billing discrepancy must be brought to the respective state's attention within that time.

In addition, individual states should only release ETC information on a court order and that release should be further limited only to information relating to where the transponder was billed at a toll plaza. This limitation would prevent the admission of ETC information that a state may have from a "traffic study." Disallowing ETC information gathered from traffic studies would be consistent with the modified reasonable expectation of privacy test as applied to ETC users. Finally, ETC information can not be used for any ordinary law enforcement purpose, such as issuing speeding tickets. Tollway authorities have stated that ETC information would never be used for

153. See United States v. Knights, 534 U.S. 112 (2001) (holding that probation creates a diminished expectation of privacy in all places and consequently a probation officer's search of a probationer's home based on reasonable grounds did not violate the Fourth Amendment).
154. See Blitz, supra note 103, at 1365 (discussing how the reasonable expectation of privacy test was intended to provide privacy in areas that would be accessible to the public; the result, however, only extended protection to "spaces that were in some sense enclosed or marked off by clear boundaries from the outside world").
155. See supra note 31 (explaining how every state on the I-Pass/E-ZPass network requires a credit or debit card to be placed on file to pay for tolls).
156. Big Brother, supra note 54.
157. This procedural safeguard is necessary because ETC transponders are silently and automatically activated by radio antennas. Vanamee, supra note 85.
158. Id.; Hilkevitch, supra note 86, at 6.
159. White, supra note 126.
speeding tickets.\textsuperscript{160} However, unless these guarantees are backed by new laws, they are merely illusory.\textsuperscript{161}

V. CONCLUSION

It would be foolish to suggest that ETC systems are not beneficial. On the contrary, ETC provides great value to both individuals and society alike. Faster travel times, less pollution, and a reduction in fuel consumption are all major reasons for people to use ETC.

Technology is showing little signs of slowing down and will undoubtedly continue to transform our world into an electronic one. However, if the law does not react to innovation and protect the privacy rights of individuals, those rights will soon disappear altogether.

ETC may not be the most powerful electronic tracking device, or even the most invasive but that is no reason to ignore the privacy implications it poses. Both the legislature and the judiciary must take notice of each instance of privacy right erosion and adopt measures to prevent it.

\textsuperscript{160} Hilkevitch, \textit{supra} note 86, at 6.

\textsuperscript{161} Vanamee, \textit{supra} note 85; Baldas, \textit{supra} note 60, at 4.