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November 19, 2007

U.S. Department of Transportation  
Dockets Management Facility  
Room PL-401  
1200 New Jersey Avenue, SE.  
Washington, DC 20590

**RE:** 23 CFR Part 950 [FHWA Docket No. FHWA-06-23597] RIN 2125-AF07; Interoperability Requirements, Standards, or Performance Specifications for Automated Toll Collection Systems  
**AGENCY:** Federal Highway Administration (FHWA); DOT.  
**ACTION:** Notice of proposed rulemaking (NPRM); request for comments.

## **INTRODUCTION**

The International Bridge, Tunnel and Turnpike Association (IBTTA) is the worldwide association for the owners and operators of toll roads, bridges and tunnels and the companies that provide products and services to the toll road industry. With members in 25 countries on six continents, IBTTA is the only organization that represents the worldwide toll industry. IBTTA members operate more than 40,000 miles of toll roads, bridges and tunnels around the world, serving tens of millions of customers on a daily basis. In the United States, IBTTA members own, operate or service more than 5,000 miles of toll roads, bridges and tunnels that provide mobility to millions of motorists and freight shippers each day. There are more than 25 million electronic toll collection transponders in operation at IBTTA member facilities in the United States. IBTTA is the leader in advancing the user fee concept to finance, fund, operate and maintain surface transportation systems throughout the world.

IBTTA is pleased to have the opportunity to respond to this Notice of Proposed Rulemaking on Interoperability Requirements, Standards, or Performance Specifications for Automated Toll Collection Systems. We will first respond to the specific questions raised by the NPRM. Then we will provide additional comments that reflect the interests of IBTTA members and the views of the association.

IBTTA concurs with the FHWA assessment that establishing a national standard for Electronic Toll Collection (ETC) interoperability isn't possible at this time. While we appreciate the interest of the Department and Congress to increase the use of toll financing and high speed tolling, we are concerned that efforts to apply a "national standard" to the existing toll agency operations in the 915 MHz band, even through very limited steps as suggested in the NPRM, could be harmful and expensive to our member agencies and vendors.

We recommend that Federal efforts focus on cultivating private sector initiatives to study business plans and agreements between toll facility operators which are needed to establish financial interoperability, a critical complement to the technological interoperability which the NPRM emphasizes. We would also recommend that standard setting efforts for technology focus on new applications and systems which will operate in the 5.9 GHz band.

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## **IBTTA RESPONSES TO SPECIFIC QUESTIONS IN THE NPRM**

We wish to recognize at the outset that this NPRM applies only to the tolling programs authorized under section 1604(b) (6) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). As stated in the Federal Register, this proposed rule specifies the Interoperability requirements for automated toll collection systems for the facilities that are tolled under any of the tolling programs contained in section 1604 of SAFETEA-LU. Specifically, this notice proposes to require facilities operating with authority under section 1604 of SAFETEA-LU to use electronic toll collection systems and for these systems to address their interoperability with other toll facilities. Although a nationwide interoperability standard has not yet been established, we understand the proposed rule seeks to accelerate progress toward achieving nationwide interoperability by requiring these facilities to upgrade their electronic toll collection systems to the national standards whenever adopted.

### **1. How should a national electronic toll collection standard be pursued?**

Establishing a national electronic toll collection standard is a worthy objective. Many in the U.S. toll industry agree that the manner in which electronic tolling technology was established with each toll agency establishing its own form of ETC was, in hindsight, a complication that could have been avoided.

The development of technically dissimilar ETC systems and proprietary protocols has resulted in a marketplace that provides for limited competition among vendors. The distribution of current systems also poses a threat to well established businesses and their customers should a national standard be adopted that favors one product or technology over another.

For this reason, any efforts by the Federal government to establish standards for ETC interoperability should focus on the future movement of technology and practice towards 5.9 GHz DSRC, GPS, and other technologies. Efforts already underway in the Vehicle Infrastructure Integration Initiative (VII) suggest there is significant interest among vehicle manufacturers, State Departments of Transportation, and other stakeholders to develop new applications and services using the 5.9 GHz communication band. There is a heavy burden on USDOT to try and standardize many of these applications before private industry begins developing their own applications and services.

At such time as the USDOT actually adopts a “national” interoperability standard there will need to be a significant window of time for toll agencies to migrate to this standard. This is necessary to allow toll agencies to fully amortize their existing system costs and facilitate the very complex logistics needed to replace millions of transponders among their customers.

### **2. What aspects of electronic toll collection should be standardized?**

Key elements in a national ETC standard would include a common data record that any agency can read and refer to; and a vehicle classification system such that agencies have common framework for such metrics such as vehicle size, axles and configurations to appropriately determine the toll charge.

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**3. How critical is the timing for establishing a national electronic toll collection standard?**

Many in the toll industry believe that establishing a national electronic toll collection standard is desirable but not critical. The toll industry is moving on its own to regional standards in a gradual but rational process based on the needs of their customers.

**4. How should the national standard incorporate current technologies and functions?**

Electronic tolling technology has advanced steadily for almost two decades. While current practice is premised on Dedicated Short Range Communication (DSRC) in the 915-928 MHz bands, movements to the 5.9 GHz band are expected within the next decade. Other technological approaches including GPS and other technologies may also come into practice.

At such time as a “national standard” might be articulated, it will have to recognize the current industry practices, and allow adequate time for agencies to transition to other technologies, providing the ability to amortize existing technology investments, as well as providing time for the planning and implementation of system and customer transition to a new platform. Any national standard should incorporate the functions articulated by IBTTA’s electronic toll collection performance specification document.

**5. How should the national standard allow for changes in technologies over time?**

A national ETC standard should not identify a specific technology, device, or vendor to be used. A national ETC standard should focus on the data protocol, how the data is stored in a device and how it is presented to the toll agency, not the means by which the data is transmitted. The issue to be addressed by a national standard is interoperability between electronic tolling equipment – not a single set of technical or performance standards. This allows for different types of electronic tolling systems and technologies and the only requirement is that they all can be accommodated by the data processing and back office systems to serve the specific data and performance requirements of each system operator.

**6. What are the personal privacy aspects of a national electronic toll collection standard and the technologies that may be used to achieve it?**

Toll agencies currently offer their customers data privacy controls and the ability to establish anonymous tag accounts that are refreshed through cash transactions. Most agencies retain toll transaction data for relatively short periods of time to allow for transaction verification in case of an account dispute with a customer. Ultimately the account information and records are the concern only of the transponder issuing agency and the customer.

**OBSERVATIONS ON THE DEVELOPMENT OF ELECTRONIC TOLL COLLECTION IN THE UNITED STATES**

The background discussion included in the Notice of proposed Rule Making (NPRM) does a good job of describing the technical development of electronic tolling and its gradual implementation through most major toll systems in the United States.

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IBTTA concurs with the assessment that establishing a national standard for Electronic Toll Collection (ETC) interoperability isn't possible at this time. ETC in the 915 MHz range involves dozens of agencies and millions of transponder-using customers. Any effort to establish a single standard in this existing realm poses significant risks and costs for every agency that might be deemed "non-standard" now or at some future date. A more appropriate role for standard setting would be technology and practices to be used in the 5.9 GHz range, in GPS, and other technologies which are anticipated to become commonplace in tolling within the next few years.

IBTTA's members have been intimately involved with the development and propagation of electronic toll collection systems since their U.S. inception in 1989. Our agency and associate members have been working together over 18 years to develop and refine their systems to be efficient, reliable and an asset to both the operators and the customers using these systems.

Insofar as toll agencies are typically ineligible for Federal funding, the development of these systems have been borne by the toll agencies themselves, at great expense, with enormously complicated planning and intense concentration on keeping their customers happy.

Each agency adopting electronic toll collection has to weigh the costs and benefits of moving from a traditional manual toll payment system to one incorporating ETC. Increasing traffic throughput on the toll facility has been the primary goal of ETC adoption.

Implementing these systems has been an expensive and complicated proposition for toll agencies:

- to acquire and install the roadside antenna and data systems to recognize transponder equipped vehicles;
- to redesign toll plazas to accommodate faster moving traffic while preserving safety for customers and toll collectors;
- to establish new business operations for the marketing, distribution and servicing of transponders being used by the toll agency customers;
- to establish violation enforcement systems that can distinguish appropriately between customers experiencing a technical or account problem, and those who don't have an ETC account; and
- to create business operations that identify and pursue drivers without accounts and seek payment of tolls due, which often involve related efforts to modify state laws making such violations punishable by withholding vehicle registrations or licensing.

Each toll agency using ETC has wrestled with these implementation issues, weighing first the impacts and benefits for their immediate customer base and then the ramifications for non-local or occasional users of the tolled facility.

As ETC systems have matured and a growing percentage of drivers have adopted the use of transponders, it makes sense for adjoining toll operators to consider making their systems interoperable, once again as a customer service and as a means of expanding ETC usage. In these instances, the toll operators will investigate both the technical ability to capture data from another agency's transponders as well as the business case and needs for sharing account information.

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In the case of a new operator just beginning ETC operations, the decision of what type of ETC system to be used will be strongly influenced by other ETC operators already in the region, taking advantage of a partially embedded population of users who already have a transponder and/or are familiar with electronic tolling.

For existing ETC operators the opportunities for becoming “interoperable” with other agencies is more complicated. It is technically feasible for dissimilar ETC systems to be interoperable, but patent issues likely prevent it.

There are two critical elements associated with interoperability: technical and financial. Though complicated, “technical interoperability” is generally deemed “easier” to accomplish than financial or “back room” interoperability. Back room interoperability involves acquiring adequate information from a transponder to allow the toll facility to be reimbursed for the vehicle trip. This requires the existence of a business agreement between two agencies (the tag issuing agency and the one on which the trip occurred) such that the tag issuing agency will reimburse the other agency for the trip and will then debit their customer’s account for the trip. Such reciprocity agreements are fundamental to viable financial interoperability.

Consortiums like the E-Z Pass Interagency Group or the Florida toll operators using SunPass have a common technical basis for their various systems but also have an interlocking series of reciprocity agreements between every other member of their groups.

## **SPECIFIC CONCERNS OF IBTTA MEMBERS PROMPTED BY THE NPRM**

What follows is a summary of concerns expressed by IBTTA members about the scope and nature of the NPRM:

- Some members are concerned that an effort by the Federal Government to establish a technical standard for ETC is premature without having a better understanding and recognition of the financial needs and methods of the toll agencies in assuring financial interoperability. More research is needed on the transition and coordination of “back rooms.”
- Even though the NPRM clearly establishes a narrow scope for the application of interoperability standards, some members are concerned that codification of a “standard to be determined” will give Congress the impression that ETC interoperability is a function subject to their control. In reality, interoperability is more accurately a function of the agencies running the toll facilities and their relationships with other toll operators.
- The NPRM language suggests a potential for creating conflict with existing state laws, as in the case of California which requires all toll operators to use Title 21 compliant systems. Though the current proposal makes no effort to set an ETC standard, it alludes to a future period when FHWA concurrence would be required on technology selection and could potentially require the use of an ETC system incompatible with the State’s requirements. Many IBTTA members are concerned about this possibility.

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- The NPRM is vague in establishing a time frame for compliance at such time as a Federal standard might be established. Electronic toll collection represents an enormous investment of capital in the transponders and associated data and communications systems. Toll agencies require adequate time to amortize prior investments and facilitate the very complex logistics needed to replace millions of transponders among their customers
- Is there a business case to be made for national interoperability? While it seems desirable that any citizen should be able to access high speed electronic tolled systems anywhere in the country, at any time, there are costs associated with servicing such a customer that the toll agencies would bear that aren't addressed in the NPRM. More analysis is needed to determine if sufficient value exists, for example, for the occasional traveler from California to pay their toll in New Hampshire with their California-based account. The tens of millions of dollars it would cost the toll industry to establish national account reciprocity may not be worth the limited benefit to a few consumers.
- Though it is beyond the scope of the NPRM, an underlying question to be answered concerns the establishment of a variable cost system in which drivers without an account with any toll agency could reasonably be charged a higher toll that reflects the greater cost and effort involved in locating the driver and receiving payment for use of facilities.
- Barring a significant infusion of federal funding into a tolling system that has historically been denied federal support raises the issue of a potential unfunded federal mandate that would be borne by the customers of current and future toll facilities.

## CONCLUSION

IBTTA wishes to thank the Department for the opportunity to comment on this NPRM. As the leader in advancing toll financed transportation services around the world, we look forward to working with the Department to create an environment in which ETC interoperability can be realized in a rational, open and organic way.

Submitted by:

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