

002013

SYMPOSIUM ON MILEAGE-BASED USER FEES: TECHNOLOGY WORKSHOP

Session 2: Implementation Challenges

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“Tolling: Impact on Mileage-Based User Fee Highway Financing”

Slide 1 - Tolling

There are a number of parallels between MBUF and tolling, including privacy. Tolling had similar privacy challenges.

Slide 2 – Current U.S. Interoperability

The first electronic toll collection implementation was in Dallas. At E-ZPass, we picked different technology. The current major U.S. systems that are not interoperable with each other are as follows:

- E-ZPass is the biggest with 21M customers and billions of dollars in tolls collected annually.
- Sun Pass in Florida – uses different technology
- TxTag – uses the same technology, but not interoperable
- California FasTrak – developed their own open technology so that others could adopt it, but no one has.
- New technology that is a lot less expensive is called 6C and several states have adopted that technology.

Slide 3 – Communication Protocols

Many technologies are out there, and we are struggling with trying to read them and make them interoperable. These existing systems represent a giant investment of infrastructure, and a lot of money in tolls collected.

Slide 4 – Toll Business Is Changing

The toll business is changing with a new generation of user that doesn't carry cash, is more tech savvy, will pay for convenience and carries multiple transponders. Additionally, costs of managing collections in cash are increasing. As a result, customers want all electronic tolling (AET) and they want interoperability, because they don't want to keep up with different systems. AET has added benefits for customers, but more operational challenges (i.e. reading one of multiple transponders on a windshield). MBUF will encounter similar challenges.

Slide 5 – Technology Keeps Changing

Toll collection technology keeps changing. By the time we figure out which of the current protocols is the best one, there will be others that are better.

Additionally, cell phone companies and vehicle manufacturers see adding features to their products that will collect money for tolls, MBUF, parking, fast food, anywhere you take your car, as a way to make more money and gain market share.

Customers want technology that benefits them and provides service to them.

Slide 6 – License Plate Use for Tolling

Tolling via license plates is an option, but a small percentage of tolls will be lost due to customer fraud, damaged or missing plates, and inaccurate mailing records.

In tolling, we need a good source of backup ID to capture these tolls and also tolls for those who are not customers. We are working with American Motor Vehicle Association to devise standardized license plates that AET systems can read better.

Slide 7 – A Backup System

One backup system is registering video accounts of license plates. It is more expensive than electronic toll tags but good for infrequent or temporary users; this group represents up to half of some systems' revenue and they are less likely to register for an account.

Slide 8 – ATI Member Agencies

Alliance for Toll Interoperability (ATI) is a not-for-profit formed to collectively solve tolling problems. It has about 50 member agencies.

Slide 9 – Financial Implications

Tolling is a 12-13 billion dollar business, primarily electronic.

Slide 10 – ATI Hub Network

How can we bring all these systems together? Establishing common rules and business operations are the hardest part of tolling interoperability. ATI created an RFP for a hub system that member agencies could subscribe to. The hub is to receive and convert data that could be used by all members. The RFP has resulted in 11 bids which are currently being considered. The hub could receive and transmit data for parking, ferries, fast food, tolls, MBOF and other entities. All the members will generate revenue into the system to sustain it.