For Whom the Road Tolls: Highway Finance, Tolling, and the DMV
Facilitator:
Cathie Curtis,
Director, Vehicle Programs,
AAMVA
Presenters:

Vic Buono,
Chief of Toll Operations, Delaware Division of Motor Vehicles

George E. Schoener,
Executive Director, I-95 Corridor Coalition

Dave Kristick,
Deputy Executive Director and Director of Operations, E-470 Public Highway Authority
For Whom the Road Tolls: Highway Finance, Tolling, and the DMV
For Whom the Road Tolls: Highway Finance, Tolling, and the DMV

AAMVA Annual International Conference
August 25, 2014

George Schoener
Executive Director
I-95 Corridor Coalition

www.i95coalition.org
I-95 Corridor Coalition

Who We Are

• Multi-Jurisdictional
  • 16 States, the District of Columbia
  • 2 Canadian Provinces (Quebec, New Brunswick)

• Multi-Modal
  • All Modes – Rail, Marine, Air, Highway – with a focus on long distance passenger travel and freight movement

• Multi-Disciplinary
  • A Partnership among Public Agencies, Toll Authorities, DMV’s, Port Authorities, Railroads, Trucking

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Funding Challenges at the Federal Level
Investment hasn’t kept up.

[Graph showing a decrease in purchasing power of HTF's largest revenue source from 1990 to 2020]

+30% population

-48% purchasing power of HTF's largest revenue source


Infrastructure continues to fail.

54% of America's major roads are rated poor or mediocre

Source: INGAA Foundation

Is our safety at risk?

33,561 people died in traffic crashes in 2012

1 in 4 bridges needs significant repair or can't handle today's traffic

Source: INGAA Foundation

www.i95coalition.org
CONGESTION is costly

2011

5.5 BILLION HOURS WASTED

2020

8.4 BILLION HOURS WASTED

SHIPPING DELAYS threaten production lines and inventories

660,000 US JOBS WILL BE IN JEOPARDY

COSTING the average commuter MORE THAN $800 AND A WORK WEEK EACH YEAR

2.9 BILLION GALLONS OF GAS WASTED

4.5 BILLION GALLONS OF GAS WASTED

Source: Texas A&M Transportation Institute

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U.S. is Falling Further Behind on the Quality of Infrastructure Compared to Peer Nations

**Table:**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country/Economy</th>
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<td>Australia</td>
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Like Prior Bills, MAP-21 Relies on the Highway Trust Fund – the Backbone of Federal Surface Transportation Funding since 1956

Motor Fuel Taxes have typically comprised about 90% of Highway Trust Fund revenues...

...but they face an uncertain long-term future.

Source: Gary McCoy, CagleCartoons.com; Congressional Budget Office.
US Highway Trust Fund Outlook

Highway Trust Fund Receipts and Outlays Discrepancy

Excludes $8.017 billion transfer from General Fund to Highway Account of HTF in September 2008; $7 billion transfer from General Fund to Highway Account of HTF in August 2009; $19.5 billion transfer from General Fund to Highway and Mass Transit Accounts of HTF in March 2010; $2.4 billion transfer from Leaking Underground Storage Tank Trust Fund to HTF in July 2011; $6.2 billion transfer from General Fund to Highway Account of HTF in FY 2013; $10.4 billion transfer from General Fund to Highway Account of HTF in FY 2014; $2.2 billion transfer from General Fund to Mass Transit Account of HTF in FY 2014.
Fuel Economy Standards

• CAFE standards for new cars will increase from 35.5 MPG in 2016 to 54.5 MPG in 2025

• Federal gas tax revenues will fall 21 percent by 2040
Federal Highway Trust Fund: Congressional Response

• The Federal Highway Trust Fund (HTF) has required several General Fund (GF) transfers

• Over $35 billion in GF transfers were necessary to extend the prior legislation (SAFETEA-LU) for 3 years

• $19 billion in GF transfers were necessary to fund the new legislation (MAP-21)

• $11 billion in additional resources were provided by Congress to maintain HTF solvency through May 2015

• No gas tax increase since 1993
Alternative Funding Approaches

• Tolling on specific transportation facilities
• Increasing the Fuel Tax
• Increase General Sales Tax in Lieu of Fuel Tax
• Institute a Sales Tax on Gasoline
• Mileage-Based User Fee
• State Actions: More than 30 states have advanced transportation-related fiscal initiatives in the last two years
Toll Collection Options Today

Cash

- At standard toll plazas, customers can pay with cash.

Electronic

- When passing through a toll plaza or tolling point, the transaction is identified by a transponder in the vehicle or by license plate if the transponder is not detected.
- Toll is deducted from the customer’s pre-paid account.

Video

- Front and rear license plate images are captured and are used to identify the vehicle owner.
- A Notice of Toll Due is mailed to vehicle owner.
Trends in Tolling
A little courtesy won’t kill you....
Open Road vs. All Electronic Tolling

Open Road Tolling (ORT) has a cash lane option:
All Electronic Tolling (AET) = “Cashless” Tolling (no in-lane cash option)

- No Toll Booths
- No Stopping
- Tolls collected at Highway Speeds
- All electronic: via overhead readers and cameras and sometimes sensors embedded in roadway
The Future is All Electronic Tolling (AET)
All Electronic Tolling Benefits

Improved Traffic Flow and Efficiency
- No stopping to pay tolls
- Reduces backups
- Faster and more reliable travel times
- Improved customer convenience

Improved Safety
- No slowing down / weaving across toll lanes

Improved Environmental Quality
- Reduces vehicle emissions
- Eliminates vehicle idling at toll plazas
- Reduced runoff from impervious surfaces

Toll Equipment Mounted Over Roadway
- No toll booths (reduces toll collection footprint)
- No staff required on site
AET and System Operation

Typical AET “Toll Zone”

- Vertical Post
- Equipment Mounting Platform
- Communication and Electrical Building
- License Plate Image Capture Equipment (Typ)
- Horizontal Span Member
- ETC Antenna (Typ)
- Laser Scanner (Typ)
- Tubular Steel (Round, Rectangular, Square) (Typ)

AECOM – AET Feasibility Study
MassDOT AET Program

Two methods of payment:

E-ZPass®

PAY BY PLATE MA

www.i95coalition.org
MassDOT AET Program

ETC = 

Vehicles drive through a Toll Zone:

The transponder identifies the vehicle:

Various technologies are used to classify vehicles:
MassDOT AET Program

License Plate Tolling =

**What if there is no transponder?**

The camera takes a picture of the license plate.
The system reads the license plate at the roadside:

**www.i95coalition.org**
MassDOT’s Tolling Future

DON'T HAVE [E-ZPass]?

WE WILL BILL YOU WITH

PAY BY PLATE MA
Why DMVs Are a Critical Partner

• Under All Electronic Tolling, there are no cash options (transponder or video tolling/plate-based)

• Accurate information on plates (owner, address) is essential for payments and enforcement
Enforcement: Three State Program

- Maine
- New Hampshire
- Massachusetts
Three State Program: Identify the Problem

• Collecting tolls and violation fees from non-residents
  • Massachusetts and New Hampshire make up 50% of the non-Maine violation images
    • Massachusetts – 32%
    • New Hampshire – 18%
    • Similar numbers for MA and NH
Three State Program: Who is Involved

• Maine Turnpike Authority
• Maine Bureau of Motor Vehicles
• Massachusetts Department of Transportation
• Massachusetts Registry of Motor Vehicles
• New Hampshire Department of Transportation
• New Hampshire Division of Motor Vehicles
Three State Program: Key Events

• March 2010:
  • Discussions begin in earnest to develop reciprocity among ME, MA, and NH

• July 2010:
  • New England Governors Conference signs a Resolution to Support Reciprocity of Electronic Toll Collection

• June 2011:
  • Maine Governor signs legislation to allow Maine Turnpike to create Reciprocal Agreements

• August 2014:
  • Pilot term expires, program becomes permanent for an indefinite term (subject to typical termination clauses)
Three State Program: Key Elements to Process

• Allows the penalties per the laws of the state of the offending vehicle to be applied for a violation that occurs in a different but reciprocal state.

• Each reciprocal state utilizes their full due process as they would for their own resident before seeking a Hold or Suspension.
Three State Program: Success Parameters

• A 70% overall collection rate among the states.

• Over $100,000 directly collected in tolls, fees and penalties.

• Countless savings through creating new customers and educating existing ones, and changing bad behavior.
What’s in it for DMV’s?

• More highway revenue collected in a state

• Potential sharing of added revenues from enforcement that could be applied to upgraded systems
What’s Next?

• More States Developing Reciprocity Agreements
  • Expand three state New England pilot
  • Additional multi-state pilots

• Central Hub System to Connect the 51 Registration Databases

• Multi-state Mileage Based User Fee System Pilot
  • Build on I-95 Corridor Coalition research outlining a multi-state system’s administrative requirements and illustrating the critical partnerships with DMV’s
Thank You!

George Schoener
gescohoener@comcast.net
DMV & TOLLS PARTNERSHIP

“IT REALLY DOES WORK!”
Background

- DE Turnpike Trust Agreement originated January 1962
- 23 mile stretch between MD state line & DE Mem. Bridge
- November 14, 1963 JFK dedicated DE Turnpike
- Prior to July 2010, Toll Operations resided in DE Turnpike Authority as part of Maintenance & Operations section of DelDOT
- For a lot of reasons it wasn’t a good fit:
  - M&O’s mission is highway maintenance
  - Toll Ops mission just didn’t fit well.
  - No upward mobility for staff
  - Vying for operational dollars was a problem
  - July 1, 2010 moved into the DE DMV
  - Combined Mission Statements
New DMV Mission Statement

- The mission of the Division of Motor Vehicles is to provide excellence in transportation by providing courteous and efficient service to the public while protecting Delaware residents by establishing the validity of licensed drivers and ensuring safe and non-polluting vehicles are operated on Delaware roadways. Also, by providing a safe, efficient and environmentally-sensitive Toll network that offers a variety of convenient, cost-effective options for processing all vehicular traffic.
Fast Facts

- 3 Toll Plazas
- Total Headcount of 190 FTE & PT Employees
- Union Shop – Corporals and Collectors
- 24/7/365 Operation
- Technical Support Group
- Finance Staff of 2
- Planned Rte. 301 Interstate Connector with AET.
- DE Welcome Center Oversight
  - E-ZPass On-the-Go sales – started in 2013
  - 9,300 transponders sold since 9/2013
  - LEED compliant site with electric car charging stations
I-95 WELCOME CENTER

DELAWARE WELCOME CENTER
E-ZPASS Group Area

25 Agencies in 15 States

- Maine Turnpike Authority
- New Hampshire DOT Bureau of Turnpikes
- Massachusetts Department of Transportation
- Rhode Island Turnpike and Bridge Authority
- New York State Bridge Authority
- New York State Thruway Authority
- Buffalo and Fort Erie Public Bridge Authority
- MTA Bridges & Tunnels
- The Port Authority of NY & NJ
- New Jersey Turnpike Authority
- Delaware River Joint Toll Bridge Authority
- Pennsylvania Turnpike Commission
- Burlington County Bridge Commission
- Delaware River Port Authority
- South Jersey Transportation Authority
- Delaware River and Bay Authority
- Delaware Department of Transportation
- Maryland Transportation Authority
- Virginia Department of Transportation
- North Carolina Turnpike Authority
- West Virginia Parkway Economic Development and Tourism Authority
- Ohio Turnpike Commission
- Indiana Toll Road Concession Company LLC
- Skyway Concession Company LLC
- Wisconsin State Toll Highway Authority

State with E-ZPass

Non-Toll State
E-ZPASS GROUP MEMBER

- Joined in 1997 as part of NJ Consortium
- 2003 split as separate State agency
- Committee involvement:
  - Executive Management
  - Technical
  - Finance
  - Marketing and Promotions
  - Operations
DMV Perspective

• Interoperability and Reciprocity for Tolls
  - Long standing issue in Tolling Industry
  - Fairly new topic to DMV’s

• Mutually beneficial partnerships need to be fostered
  - Customer data
  - Fees, penalties and scofflaw accountability
  - License plate standardization
DMV Perspective Cont.

• IAG Interstate Reciprocity Agreements
  – Maine, Mass. and New Hampshire
  – DMV working towards agreements with NJ, MD, VA, and PA.

• Agreements can allow for:
  – Sharing of Data for violators & non-violators
  – State to State data exchange for non-violations to facilitate Open Road Tolling (ORT)
  – Some states will require legislation (DE, SB 24)

• First in North America to combine DMV Call Center and E-ZPass Customer Service Center
DMV Perspective

- Vehicle registration holds for violators - $311k

- First in North America to combine DMV Call Center and E-ZPass Customer Service Center
Customer Service Center

- In 2003 TransCore won the RFP as contract provider for the Customer Services and Violations Processing Center.
- In 2013, TransCore again won the RFP that included the addition of a DMV Call Center, which is operational during regular business hours for both live and on-line chat availability.
- The RFP included locating in center city Dover, DE as part of the Downtown Dover Partnership urban renaissance effort.
- Hugely successful endeavor, resulting in increased foot traffic and a corresponding increase in local merchant business.
KEY MERGER ADVANTAGES

• Increased opportunities for all Tolls employees:
  - Tolls employees have cross-trained at DMV sites.
  - Tolls employees graduated from the DMV-MIT program.
  - Tolls employees have transferred into DMV positions
  - Tolls employees currently on waiting list
Key Merger Advantages Cont.

- We now provide DMV services at all toll plazas:

  Driver Services  - Print Driving Record
                   - Next of Kin update

  Vehicle Services - Address Change/Reg only
                   - Duplicate Reg. card
                   - Reg. renewal
                   - Issue/Renew Handicap placards

  Administrative  - E-ZPass On-the-Go Sales
Future Opportunities

• Leverage the first DMV/Tolls merger in the US to increase opportunities for interoperability and reciprocity across all States.

• Promote our relationship with AAMVA with other organizations with similar interests:
  – E-ZPass Group
  – IBTTA
  – ATI
  – I95 Corridor Coalition
  – Industries
    • Engineering / Technology
Where are we headed?
Questions / Comments

Vic Buono
Chief of Toll Operations
Delaware
(302) 366-7201

victor.buono@state.de.us
The Future of National Transportation: Where Tolling, DMV’s and DOT’s Intersect

Dave Kristick
Deputy Executive Director &
Director of Operations
E-470 Public Highway Authority
Aurora, Colorado
BACKGROUND INFORMATION

- 47-mile toll road
- All-electronic tolling
- User-financed
- Political subdivision
• Voting Members:
  – Adams County
  – Arapahoe County
  – Douglas County
  – Aurora
  – Brighton
  – Commerce City
  – Parker
  – Thornton

• Non-Voting Members:
  • Arvada
  • Broomfield
  • Greeley
  • Weld County
  • Colorado Department of Transportation (CDOT)
  • Denver Regional Council of Governments (DRCOG)
  • Regional Transportation District (RTD)
ALL ELECTRONIC TOLLING

- **ExpressToll™**
  - ExpressToll™ customers prepay their accounts by cash, check, or credit card
  - 1.1 Million transponders issued as of 7/31/14
  - 70% of Toll Transactions in 2013
    - 71% of Net Toll Revenue in 2013
    - 97.7% Collection Rate of Billable Revenue

- **License Plate Toll (LPT)**
  - Captures images of the vehicle and the registered owner receives a statement of use for toll collection (Post-pay)
  - Payments are accepted online, by phone, mail or in person
  - LPT customers pay a 25% premium over ExpressToll™
  - 30% of Toll Transactions in 2013
    - 29% of Net Toll Revenue in 2013
    - 91.5% Collection Rate on Billable Tolls
ExpressToll vs. LPT Transaction Growth

<table>
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<tr>
<th></th>
<th>Overall Growth %</th>
<th>LPT</th>
<th>ExpressToll</th>
<th>YTD 2014</th>
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<tr>
<td>2011</td>
<td>1.5%</td>
<td>14,320,571</td>
<td>37,759,815</td>
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<td>2012</td>
<td>3.6%</td>
<td>15,271,039</td>
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<td>2013</td>
<td>8.2%</td>
<td>17,294,134</td>
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<td>YTD 2014</td>
<td>12.7%</td>
<td>9,451,597</td>
<td>21,338,369</td>
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* Q2 2014 increase calculated as compared to Q2 2013
Criticality of DMV Data

2014 Unbillable Toll Revenue by Type Breakdown

- No Visible License Plate, 31%
- Temporary License Plate, 28%
- Other, 12%
- No DMV Record, 13%
- Blurry Image, 9%
- Obstructed Plate, 3%
- Out of State - No DMV, 1%
- Weather, 3%
E-470 Sources of DMV Data

• Direct Interfaces:
  – CO DMV
  – WY DMV
  – NE DMV *
  – IA DMV

• Private Party Interface for Other States and Provinces
Security of DMV Data by Toll Agencies

- Annual Payment Card Industry Audit
- Direct Interface Partner Requirements
  - Law Enforcement Audits
  - Special Software Development
  - Downstream Contract Requirements
LPT Imagery

[Image of a computer screen showing a image processing interface with the text 'OK' and 'AZ' highlighted.]
Future Managed Lane Facilities

- CDOT Owned
- P3 (CDOT & PRD)
- All-electronic tolling
  - ExpressToll & LPT
Projection of Colorado Toll Facility Transactions 2014-2020

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<th>Year</th>
<th>E-470</th>
<th>I-25N</th>
<th>US-36 (Plenary)</th>
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<td>7,216,090</td>
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<td>11,704,000</td>
<td>18,015,868</td>
<td>1,713,609</td>
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Total Projected Transactions: 39,860,978
Nationwide Tolled Managed Lane Facilities

• Washington, DC
• North Carolina
• Florida
• Texas
• California
• Washington
• Utah
• Georgia
Nationwide Toll Interoperability

• Guidance through Federal Law (2012)
  – Moving Ahead for Progress in the 21st Century (MAP-21)
• Single Toll Account
• Single Device (Transponder)
• Accepted by All Toll Facilities Nationwide
MAP-21 Language (July 2012)

Electronic Toll Collection Interoperability Requirements.--Not later than 4 years after the date of enactment of this Act, all toll facilities on the Federal-aid highways shall implement technologies or business practices that provide for the interoperability of electronic toll collection programs.
Nationwide Toll Interoperability Committee Structure

- Roadside Operations Subcommittee (ROSC)
- Back Office Subcommittee (BOSC)
- Communications Subcommittee
- Governance Subcommittee
Nationwide Toll Interoperability Committee Progress

- To Be Approved September 2014:
  - Interoperability Back Office Business Rules
  - National Toll Protocol Requirements Document
  - National Toll Protocol Nomination and Selection Criteria
The Future of User-Funded Transportation: Where We Integrate

Toll Agencies

DOT’s

DMV’s

$
Questions / Comments
For Whom the Road Tolls: Highway Finance, Tolling, and the DMV
Up Next:
5:30 pm – 7:30 pm
Chair’s Welcome Reception and Dinner: A Night at the Boardwalk
Ballroom C

Tomorrow:
9:00 am – 10:00 am
CONCURRENT SESSIONS
Using NMVTIS to Enhance Your Title Program and Reduce Vehicle Fraud
Diamond Room 1

Who Are You Really? Using Verification Systems to Fight Fraud
Diamond Room 2