

Tolling Workshop

Presented to:

Joint Transportation Committee

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HNTB

Agenda

General Tolling Overview

- Survey of Toll agencies, Facilities and Operations
- Survey of Toll Technologies
- Interoperability
- What does the future hold?

Current Trends in the Toll Industry

- Managed Lanes / HOT Lanes
- Open Road Tolling
- Interoperability
- Back Office Consolidation



What is Open Road Tolling?

- Electronic Toll Collection and Video Billing
- Requires Electronic Enforcement
- No Toll Booths
- Highway Speed
- Must Provide for Cash/Check Payments Off-System



Status of Open Road Tolling in North America

Plans for conversion

- E-470 - Denver
- Miami-Dade Expressways - Miami
- President George Bush Turnpike - Dallas
- Homestead Extension of Florida's Turnpike - Miami
- Atlantic City Expressway – NJ
- Crosstown Expressway - Tampa
- New Jersey Turnpike

Under study

- Port Authority of New York & New Jersey Bridges and Tunnels
- Metropolitan Transportation Authority Bridges & Tunnels – New York

New/Planned facilities

- Triangle Expressway - Raleigh
- SR 520 - Seattle

Operating Managed/HOT Lanes

- Route 91 Express Lanes – Orange Co., CA
- I-15 Express Lanes – San Diego
- I-15 Express Lanes – Salt Lake City
- I-394 Express Lanes - Minneapolis
- I-95 Express - Miami
- Katy Freeway (I-10) Managed Lanes - Houston
- I-25 HOV/Express Lanes - Denver
- SR 167 HOT Lanes – Seattle

Operating Open Road Tolling Facilities

- Loop 49 – Tyler, TX
- State Highway 121 – Dallas
- Westpark Tollway - Houston (Electronic Toll Collection-only)
- 183A - Austin
- 407 Express Toll Route – Toronto, ON

Open Road Tolling – Benefits

- Higher Performance and Safety
- Greater Efficiencies in Cost and Traffic
- Sustainability
- Reduced Right-of-Way



Open Road Tolling - Challenges

Payment Options

- Kiosks
- Third parties
- Anonymous Electronic Toll Collection accounts
- Video accounts



Open Road Tolling - Challenges

Higher Reliance on Technology

- Push toward Electronic Toll Collection
- Cameras



Open Road Tolling - Challenges

Business Rules and Finance

- Revenue stream delay
- Fees
- Rating agencies

Run Date: 2004W02 14:28:22

CREDIT CARD JOURNAL DETAIL
For Dates 2004-04-04 to 2004-04-04

Clerk	Post Date	Account No	Credit Card #	Type	Amount	Auth Code	Exp	Agency	Balance
6048	2004-04-02 15:50	5362813	xxxxxxxxxxxx2004	A	\$39.25	13931	1205	FTC	
6048	2004-04-02 20:19	5330214	xxxxxxxxxxxx1010	A	\$55.50	143246	1907	FTC	
6048	2004								
6048	2004								
6048	2004								

AGENCY DEPOSIT REPORT
Date: 2003-03-10 to 2003-03-12

Inventory Equipment Requests

Equipment Type	Count

BAD CHECK REPORT
Date: 2005-01-01 to 2005-01-20

Transaction	Trans Code	Deposit Bank	Amount
ADJUST GND CHECK FEE	A5-1	FTC	
BAD CHECK FEE	B	FTC	

Run Date: 2005/08/16
Run Time: 12:38:08

VIOL #	DATE	PLATE	Amount
38543130	2003-09-27 01:17:11	CA-4NUJ	
38552594	2003-09-27 11:13:53	CA-4NUJ	
38571540	2003-09-27 10:14:45	CA-4NUJ	
38571802	2003-09-27 10:21:29	CA-4NUJ	

ACCOUNT	ACCOUNT	PAYMENT PLAN ID	Amount
007143	COLLECTION	4828	
008100	OPEN	1981	
010824	COLLECTION	1901	
011044	MAIL	4838	
011216	COLLECTION	4708	
011424	COLLECTION	4608	

TOTAL REC READ: 6 MONEY DUE: 607.27

Total outstanding on 21 Violations: \$1902.25

Subtotal FTE	Subtotal SAH	Total
1192	649	1757

Open Road Tolling - Challenges

Enforcement

- Electronic Toll Collection only or Video supplement
- Enforcement Model Changes



Open Road Tolling – Technology Choice

Transponders/Readers

- 4 vendors currently in US market
- 2 vendors have similar technology

Lane Systems

- 8 – 10 vendors in US
- Each is unique

Back Office Systems

- 5 – 7 vendors in US

Miami-Dade Expressway Authority Toll System Procurement

Firm	ORT Lane System	Back Office System and Operations
Electronic Transactions Consultant Corp. (ETCC)	X	X
TransCore	X	X
ACS State & Local Solutions	X	X
Telvent/Faneuil	X	X
Raytheon	X	
VESystems		X

North Carolina Turnpike Authority Toll System Procurement

Firm	Lane System	Back Office System	Operations
ACS State & Local Solutions	X	X	X
Alltech			X
ETC Corp.	X		
Fanueil, Inc.			X
IBM	X	X	X
Indra USA		X	
Kapsch TrafficCom U.S. Corp.	X	X	
Telvent Caseta, Inc.	X	X	
TransCore, LP	X	X	X
United Toll Systems, LLP	X		
VESystems		X	
Washington Division of URS Corp.			X

Open Road Tolling – Collection Costs

Traditional Cash Collection

- \$0.10 to \$0.30 per transaction

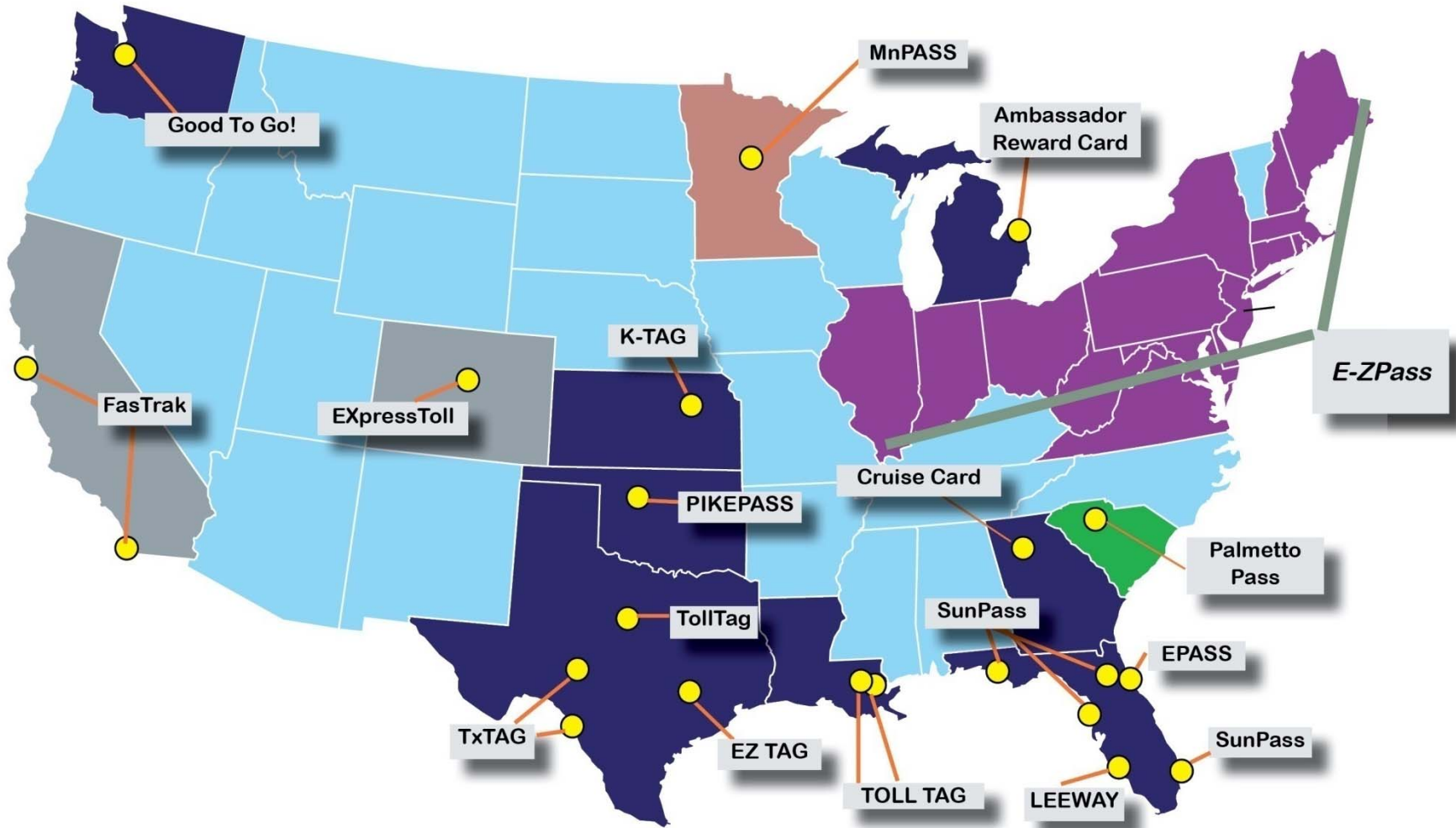
Open Road Tolling

- \$0.03 to \$0.15 per transaction

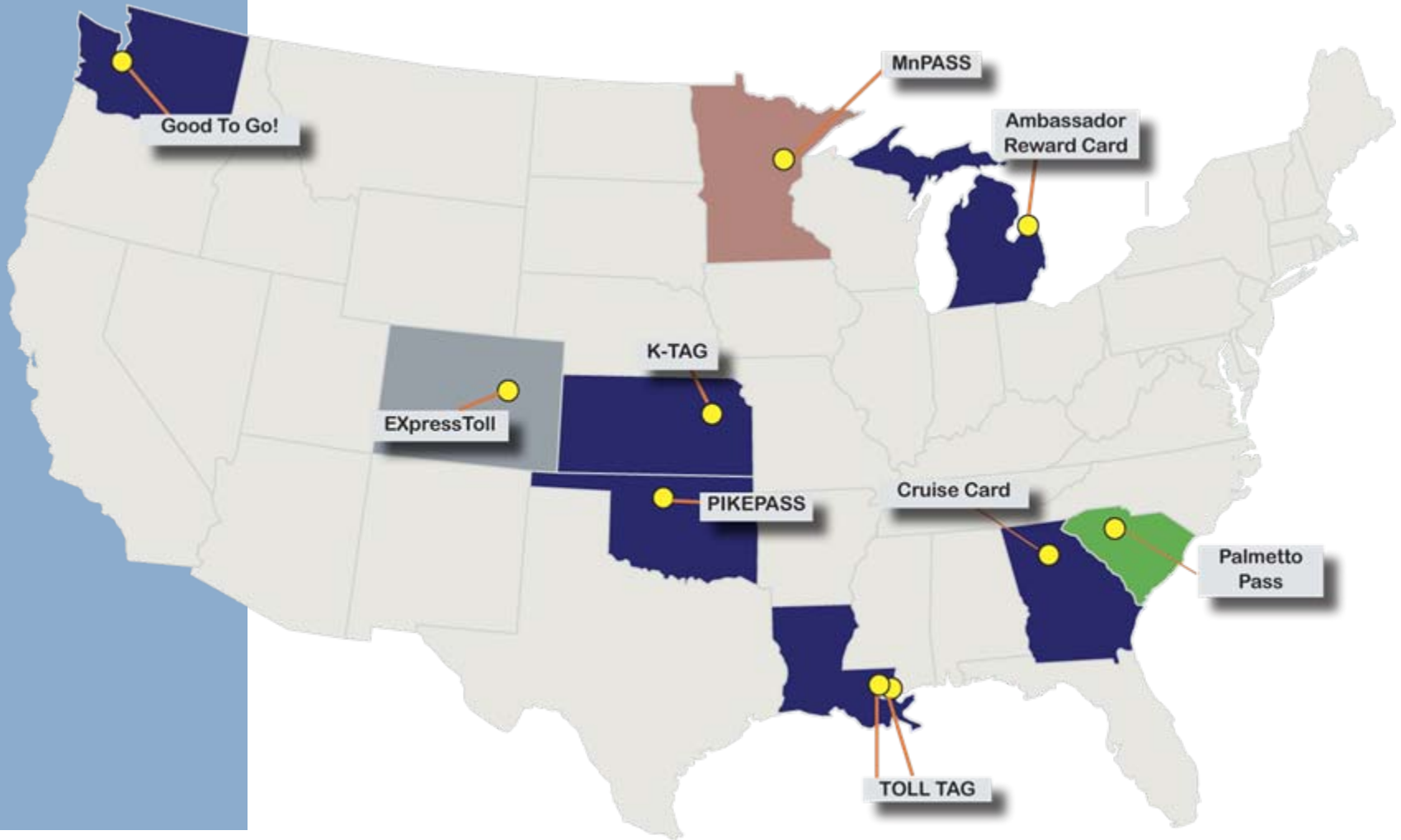
Cost Drivers

- Transponder cost
- Back Office Operations (small vs. large consolidated)
- Credit Card Fees
- Enforcement/Collections
- Average toll, transaction #'s

Interoperability



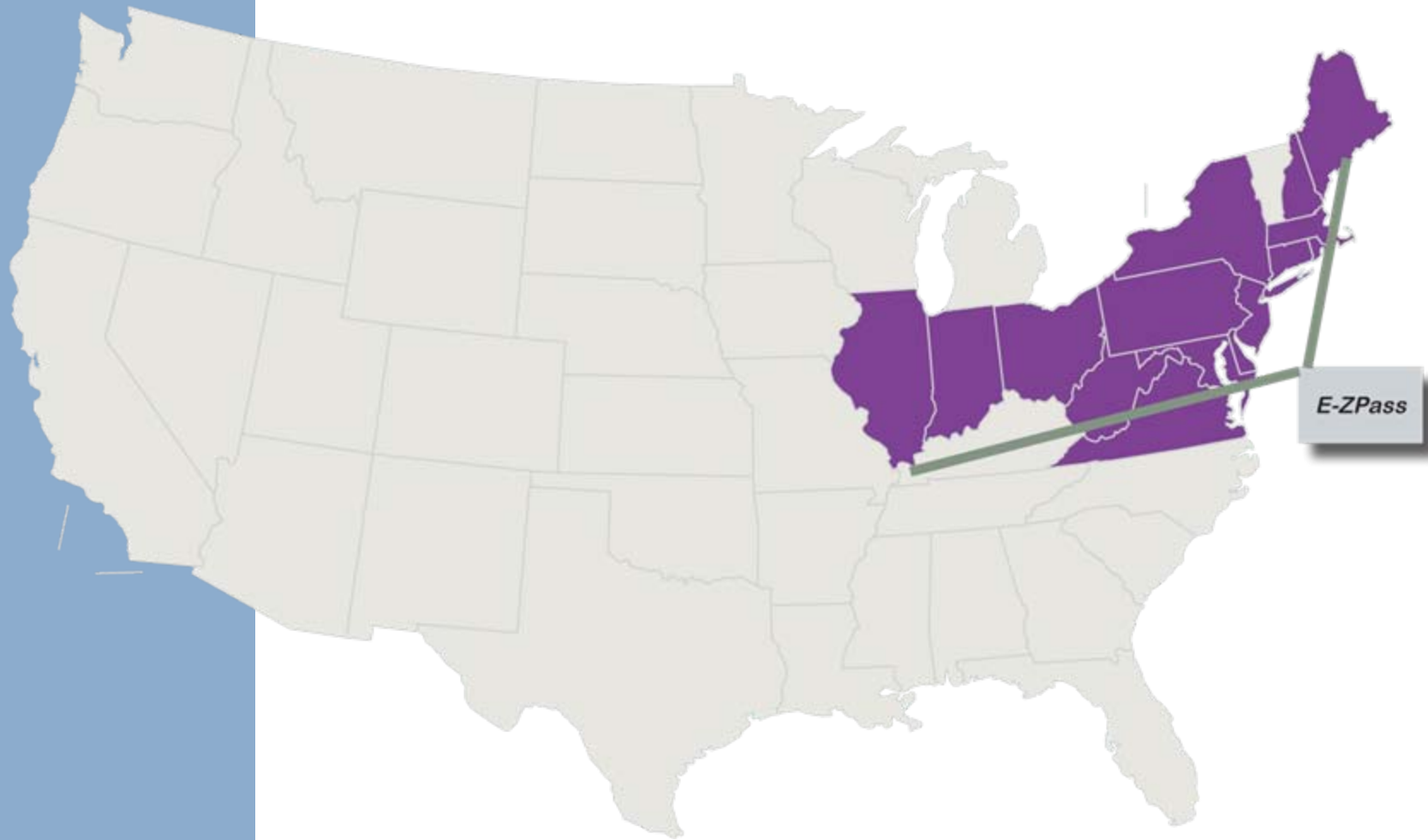
Interoperability



Interoperability



Interoperability



E-ZPass

What does the future hold?

- ✓ **Transponder Technology**
- ✓ **Camera Technology**
- ✓ **More Competition**
- ✓ **More Toll Facilities**
- ✓ **Interoperability**

