

FTC Expressway Authority Cost Savings Study

Presented to:

**Florida Transportation Commission
Expressway Authorities**

Presented by:

**Cambridge Systematics, Inc.
Center for Urban Transportation Research
University of South Florida**

October 16, 2012 Workshop, Orlando, Florida

Presentation Outline

Overview/Orientation to Report Sections

Discussion on each Section

Next Steps

STUDY REVIEW

Objective

Analyze, assess and recommend opportunities for cost savings and efficiencies from sharing resources among Florida Expressway Authorities

Study Elements

Design/Project Development

Construction

Maintenance

Operations

Executive Summary will be added based on FTC
and agency comments in the Final Report
Draft due November 1

SUMMARY OF KEY FINDINGS

Overarching Issue: Authority Distinctions

Authorities operate differently

- Scale of operations – lane miles maintained
- Geographic diversity
 - FTE provides systems statewide
 - Authorities focus on regional services
- FTE relationship to FDOT
 - Operations and system reporting is fundamentally different than Authorities

Scale of operations, geographic coverage and reporting differences makes direct comparisons difficult

Common Performance Measures Needed

Performance measures should be defined and developed that allow for better tracking of cost-effective service delivery

All Authorities should report the same measures that provide a logical basis to identify efficiencies in service delivery

Measures should be built on equivalent information that support continuous improvement -

- Increase in cost efficiencies
- Improved customer experience
- Improved service delivery

Resource Sharing is Common, Internalized among Authorities

Authorities share common customers

Authorities share consultants, common practices

Authorities sharing development of next generation toll collection back office

Centralized Customer Service System (CCSS) Represents Significant Efficiencies for all Agencies

Improved performance system for reliable, cost-effective transaction processing and seamless customer service

Greater efficiencies (time and cost) in financial settlement between agencies

Participating agencies should continue to encourage progress in ILA, third party procurement process, implementation, operation and monitoring

PROJECT DEVELOPMENT

Product Development Overview

Work program analysis

- Project development activities

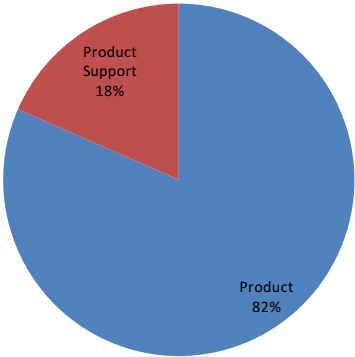
Resource sharing

Project development coordination

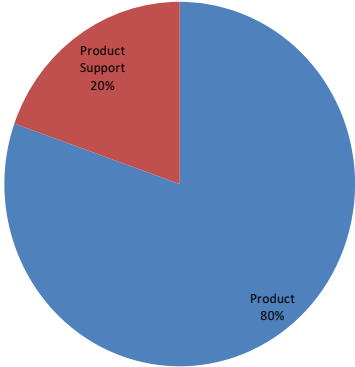
Recommendations

Work Programs

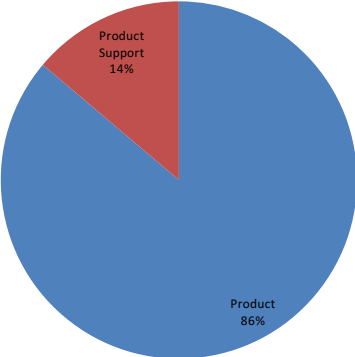
FDOT FY 2013 - 2017



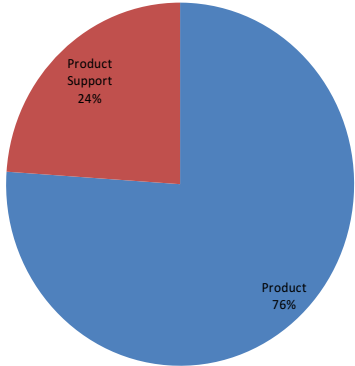
FTE FY 2013-2017



OOCEA FY 2012-2021



MDX FY 2013 - 2017



Project Development Resource Sharing

Agency	Project	Description	Sharing Arrangement
FTE/OCX	Osceola Parkway Extension	Project Management being performed by FTE	Sharing In-House or Consultant resource
FTE/MDX	HEFT Widening SR 874 Ramp Connector Project	FTE to include design and construction of the SR 874 extension over HEFT into FTE Design Build project	“Piggy Backing” on project development contracts
THEA/FDOT District 7	Ongoing proposal development and review	THEA routinely seeks FDOT District 7 expertise in consultant selection	Sharing In-House resource
OOCEA/FDOT	Permitting Provision	FDOT District 5 provides permitting services for OOCEA avoiding duplication of staff	Sharing In-House or Consultant resource
MDX/FDOT	SR 826/SR 874 interchange	Co-Funded \$60 Million improvement with FDOT	Joint Participation Agreement – pooled financing
MDX/FDOT	SR 826/SR 836 Interchange	MDX co-funded \$200 Million project with FDOT	Joint Participation Agreement – pooled financing
MDX/FDOT/Miami-Dade County	Airport Central Boulevard Project	Partnered with FDOT and Miami-Dade County – Co-funding	Joint Participation Agreement – pooled financing

Project Development Coordination Summary

Agency	Legislative Authority	FDOT District Secretary	Authorization to Construct a New Project	Provisions for Cooperation with Local Governments	Type of Entity	MPO Affiliation
FTE	FDOT – F.S. 20.23 FTE – F.S. 338.22	Executive Director member of FDOT Executive Team	Inclusion in FDOT Work Program, legislative approval, financial tests.	Inclusion in Fla. Transportation Plan, metro areas long-range plans, nonmetro County notification	FDOT – State Executive Department	Through Districts
MBBA	Ch.2000-411 Laws of Florida	Member of MBBA Board ex-officio nonvoting	Mid Bay Bridge, approaches and other facilities	County budget review and approval- County sits on MPO Board	County dependent special district	Okaloosa County on TPO
MDX	Florida Expressway Act F.S. Chapter 348 Part I	Member of MDX Board ex-officio nonvoting	Add facilities with the prior express written consent of the Board of County Commissioners	Expenditures are consistent with MPO adopted long-range plan. Voting seat on the MPO Board with two FDOT reps (nonvoting)	Independent Special District – State	Miami-Dade MPO
OCX	F.S. Chapter 348 Part V	Member of OCX Board ex-officio nonvoting	Add facilities with the prior express written consent of the Board of County Commissioners	Same as Part I authorities – Expenditures are consistent with MPO adopted long-range plan County on MPO Board – no seat for OCX	Independent Special District – State	Metroplan Orlando
OOCEA	F.S. Chapter 348 Part III	Member of OOCEA Board ex-officio voting	Expressway System in Orange County, extensions, and new facilities at the invitation of another County	Voting seat on the MPO Board with FDOT District Sec. (nonvoting advisor)	Independent Special District – State	Metroplan Orlando
THEA	F.S. Chapter 348 Part II	Member of THEA Board ex-officio voting	Expressway System in Hills. County	Collaboration/Consultation Hills. Co. Planning Commission. Voting seat on the MPO Board with FDOT District Sec. (nonvoting adv.)	Independent Special District – State	Hillsborough County MPO

Project Development Performance Indicators

Data for agencies collected and reported differently

Agencies under current FTC oversight are required to report different metrics

Agencies without large capital programs at the current time have little data to report

Project Development Recommendations

Standardize reporting requirements

- Metrics for agencies be standardized; new reporting requirements documenting actions to improve collaborations be implemented

Establish regular forum for discussing project development opportunities

CONSTRUCTION

Construction Programs Vary

Total contract lettings (2007-2012 totals) varies from \$1,044 M to \$72M

Annual numbers of contracts completed per year (2007-2012 average) varies from 17 to 0.3

This means that performance measures can be difficult to compare across Authorities

Construction Data Vary

Definition of construction completion

- Definition of substantial completion varies between Authorities and FTE
- Recent economic downturn skews contract letting
- Accommodating technology and other changes may extend contract but provide efficiencies missed by this single metric

Construction Issues

Construction projects sized to practical limits to allow maximum competition

Design/Build is used differently, Authorities seek to reduce project delivery times

Project time management most prominent, through contract specs and bidding

Construction Efficiencies

Project coordination and cost sharing

CEI consultant pools shared

Authorities share best practices

Recommendations

Project revenue estimates to consider acceleration bonuses

New performance measure for total project delivery time

Construction project cost estimate calibration

MAINTENANCE

Maintenance Overview

Review of asset maintenance contracts for
FTE and authorities –

Analysis of Routine Maintenance Costs

Asset Maintenance Contracts/Bridge and Roadway Maintenance Service

All Authorities use asset management contracts

FTE also provides conventional maintenance on two geographic zones

OOCEA uses two firms for its system

MBBA part of FDOT District Asset Mgmt contract

All asset management contracts (except OOCEA) use similar MRP sampling practices

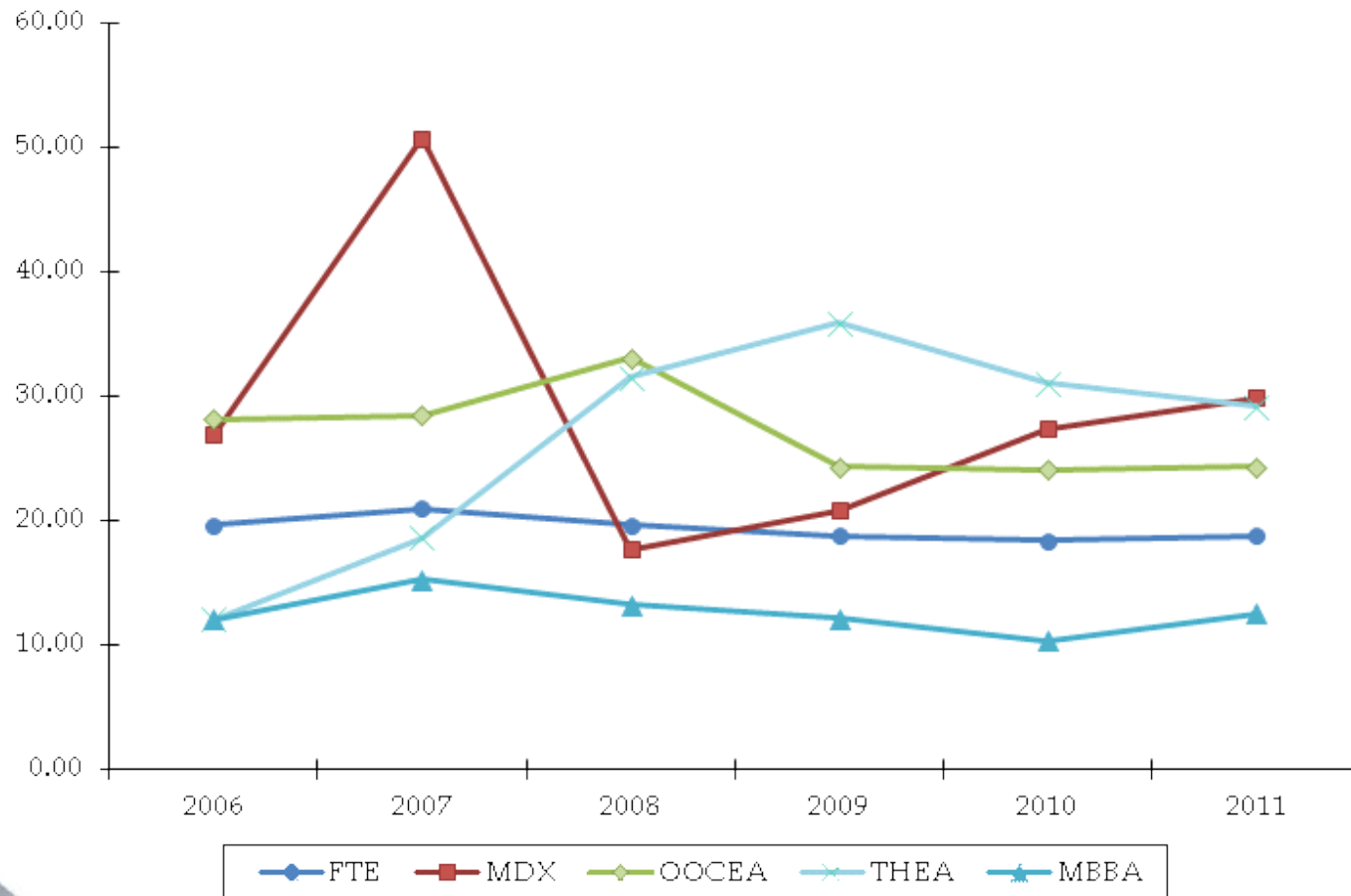
Maintenance Rating Programs

All authority asset management programs reach 90-92 overall MRP (except MBBA)

Contract terms tie payment to asset management conditions

Maintenance Cost per Lane Mile

Maintenance Cost per Lane Mile (\$000s)



Maintenance- Recommendations

Standardized Performance Metrics

- Maintenance performance measures for all agencies should be established with common targets

Track FTE Maintenance Costs and Performance Metrics by Maintenance Zone

OPERATIONS

OPERATIONS

Customer Accounts and Transaction Volumes

Agency	Customer Accounts		2011 Total Transactions (000s)	
	Accounts	Transponders	ETC ^a	Total
FTE	4,100,000	7,800,000	543,982	732,056
OOCEA	291,208	513,553	220,437	295,598
LeeWay	Less than 100,000	NA	9,803	17,199
MDX	NA	NA	223,093 ^b	232,655
THEA	NA	NA	31,635 ^c	31,635

^a ETC transactions include transponder and image (Toll-by-Plate) transactions.

^b Approximately 85% of ETC transactions are SunPass customers.

^c Approximately 80% of ETC transactions are SunPass customers.

Florida Home and Client Agencies

Figure 4.1 Florida Home Agencies

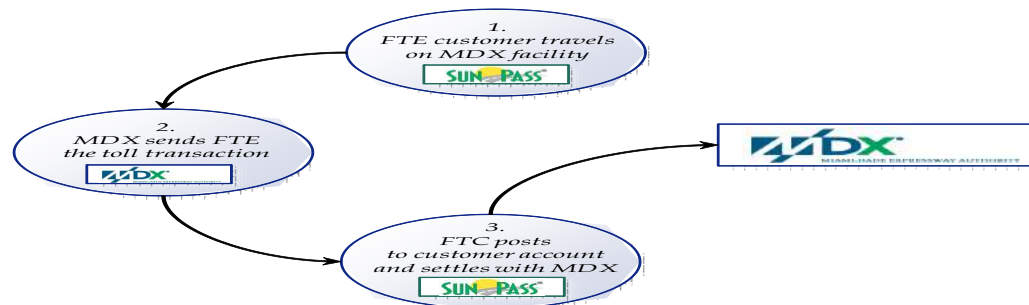


Figure 4.2 Florida Client Agencies



Example of Current ETC Transaction Flow

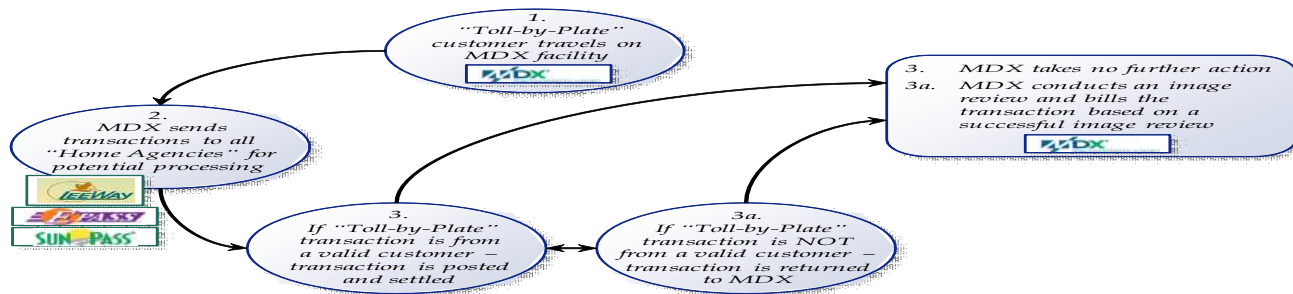
Figure 4.3 Example of Current Interoperable Transaction Flow



Interagency Electronic Toll Collection Interoperability and Reciprocity Agreements define transaction processing and settlement procedures

Toll-by-Plate Generalized Transaction Flow

Figure 4.4 Toll-by-Plate Generalized Transaction Flow



Status of the Centralized Customer Service System (CCSS)

MOU complete among participating agencies
(FTE, MDX, OOCEA, THEA)

System design goals established

Participating agency business rule and
technical requirements meetings initiated

Development of the overall project schedule
underway

Operations- Recommendations

Establish FTC briefing on program status

- Issues and resolutions
- Overall system design
 - Transaction processing
 - Interagency settlement processes
 - Customer interaction

Ensure customer interaction is fully developed

- Clarity of customer account management
- Focus on ease of use and interaction

Establish common performance measures for reporting on system performance based on CCSS goals

NEXT STEPS – PROCESS AND SCHEDULE

Schedule

OCT

1

Draft
Report
Submitted
To FTC

OCT

16

Draft
Report
Workshop

NOV

1

Final Draft
Report to
FTC

NOV

15

Final Report
Transmitted
to
Legislature

Next Steps

Complete detailed review with FTC and the agencies

- Fill in missing data as appropriate
- Address all comments

Complete all edits and refinements to the report for final draft distribution on November 1, 2012

Receive comments and produce final report by November 15, 2012