



Finance & Administration Committee

Information Item IV-A

June 9, 2011

**Business Case for the New Electronic
Payments Program**

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

<input type="radio"/> Action <input checked="" type="radio"/> Information	MEAD Number:	Resolution: <input type="radio"/> Yes <input checked="" type="radio"/> No
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TITLE:

New Electronic Payments Program

PURPOSE:

To provide an update to the Board of Directors on Metro`s New Electronic Payments Program (NEPP), formerly named the Open Payments Initiative. The presentation will outline the program, the steps taken to-date, the business case and outline next steps to achieve program goals.

DESCRIPTION:

Metro`s existing fare collection system is aging rapidly in the context of equipment and systems and it is severely limited in its flexibility to introduce new products and payments for its customers.

Core to implementation of the NEPP is a complete refresh of Metro`s fare collection system software and hardware including new gates and vendors in the Metrorail system and electronic targets on-board Metrobus. Further, this new system will integrate into other mission critical business systems such as Maximo, Trapeze and Peoplesoft.

Under the NEPP program, Metro will shift from an issuer of fare media to an acceptor of fare payments using a variety of International Standards Organization (ISO) approved contactless cards including new SmarTrip cards, bank-cards, Federal ID cards and the next generation of smart phones equipped with Near Field Communications (NFC) payment capability. The NEPP systems and hardware will be standards-based and utilizing standards from the financial services and smart card industries among others.

Metro has initiated a two-step procurement process and concluded activities tied to Step-1. Staff plans to issue the Step-2 request for proposal documents by June 30, 2011.

FUNDING IMPACT:

This presentation is for informational purposes only. In the future, the Board will be asked to approve a budget for this project.

RECOMMENDATION:

Presentation is for informational purposes only.



Washington Metropolitan Area Transit Authority

New Electronic Payments Program

Finance and Administration Committee

June 9, 2011



Purpose

- Update the Board Committee on New Electronic Payments Program (NEPP)
 - Business case review
 - Accomplishments to-date and next steps
 - Transit industry collaboration and leadership
 - Development of new fare model for revenue and ridership



Program Overview

- Complete replacement of existing fare collection system
 - New gates, ticket vending machines
 - New central data system; hardware and software
 - New contactless smart card readers on bus, rail, parking
 - Update website and customer interfaces for new system
 - Fully contactless smart card-based; eliminate magnetic media

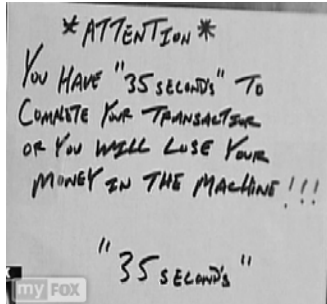


Program Goals

- Simplify and enhance customer experience
 - Make paying fares simple and easy
- Re-invest in fare payment system
 - Update look, touch, and feel to customer
- Integrate with mission critical business systems
 - Maximo, Trapeze, and Peoplesoft
- Adopt new technologies within the industry
 - Transit Agency Roundtable
- Increase ridership through ease of use and convenience



Today's Issues



May 2011



May 2011

“Bus Riders Having Problems Adding Fare to SmartTrip Cards”

May 2011

The Washington Post

“WMATA: Miniscule Delay is Here to Stay...”

August 2010



“2 Days of Glitches Stall Metro Fare Increases”

August 2010

The Washington Post

“CVS SmartTrip Fare Machines Facing Problems”

June 2009



“Glitch Snags First Day of Higher Metro Fares”

June 2010

The Washington Post



Today's Issues

- Aging equipment and infrastructure
 - Reliability impacts customers
 - Customers want to move beyond magnetic tickets
 - Invest in State of Good Repair (SOGR); estimated at \$60 Million
 - Overhaul faregates and vending machines; software updates
 - Compact Point of Sales (CPOS) devices; communications
 - Strained capability for expansion and innovation
 - Adding fare products or changing structure is complex

- Proprietary and legacy technology
 - Changes are expensive with long timelines
 - Obsolete components; e.g. GoCard chips
 - Challenging to maintain in SOGR



Potential Benefits

- Improve customer service
 - Develop more options and improved methods to pay fares
- Optimize annual maintenance costs, increase reliability
 - Based fully on contactless smart cards and Near Field Communication (NFC) smart phones
 - Eliminate magnetic stripe media
- Reduce annual operating costs
 - Shift WMATA from issuer to merchant
 - Reduce reliance on SmarTrip; transition over time



Potential Benefits

- Increase efficiency of processing passenger revenue
 - Reduce potential for fare evasion
- Improve SOGR
 - Overhaul or replacement of faregates and ticket vending machines overdue; FY2015-2017
- Develop non-passenger revenue
 - Loyalty programs
 - Co-branding
 - Mobile payment applications



Business Case: Operating Budget

Current Expenses	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Maintenance	19.8	20.3	20.9	21.5	22.1	22.7	23.4	24.0	24.7	25.4	26.2
Revenue Collection	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.2	8.4	8.7	9.0
Contract Services	6.3	6.4	6.6	6.7	6.8	6.9	7.1	7.2	7.4	7.5	7.7
Parking Operations	4.3	2.2	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
Debit/Credit Processing	7.8	7.9	8.1	8.3	8.4	8.6	8.8	9.0	9.1	9.3	9.5
Fare Media and Sales	3.3	3.4	3.5	3.5	3.6	3.7	3.7	3.8	3.9	3.9	4.0
Total Current Expenses	\$48.3	\$47.3	\$46.9	\$48.1	\$49.2	\$50.5	\$51.8	\$53.1	\$54.4	\$55.8	\$57.2

Forecast Savings	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Revenue Optimization				1.5	1.5	2.0	2.3	2.6	3.0	3.0	3.0
New Revenue				1.0	2.0	2.0	2.5	3.0	3.0	3.0	3.0
Operating Savings	0.0	0.0	0.0	-0.9	-2.8	-3.1	-2.3	-0.8	16.9	29.0	27.8
Total Forecast Savings	\$0.0	\$0.0	\$0.0	\$1.6	\$1.7	\$15.5	\$17.1	\$19.4	\$22.9	\$35.0	\$33.8

\$ million

Today's investment in NEPP leads to future savings over \$145m through FY2021



Business Case: Capital Program – AFC Equipment Overhaul

Current Program	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
NEPP Program - PM	1.5	2.3									
Bus Farebox Overhaul			4.2	4.2	4.2						
Parking – Credit Card	4.7										
NextFare 5 – Completion	6.6	1.0	0.2	0.2	0.2						
PCI Compliance	1.9	0.3	0.3	0.3	0.3	0.3	0.3				
Ethernet for Faregates	1.3										
Coin Collection Devices	2.3										
Fare Vendor Update		1.1	1.1	1.1	1.1	1.1	1.1				
Currency Processing	0.6	1.5	0.8								
Revenue Facility Equip	0.7	0.3	0.2	0.5	0.4	0.3	0.4				
Programmed Total	\$19.6	\$6.5	\$6.8	\$6.3	\$6.2	\$1.7	\$1.8	-	-	-	\$48.9
Metrorail AFC SOGR*			3.1	3.1							
Metrobus AFC SOGR*			1.3	1.3							
Parking SOGR*			1.1	1.1							
CPOS SOGR*			1.0	1.0							
Faregate/Vendor Overhaul*					2.0	14.9	14.9	14.9			
Not Programmed Total	-	-	\$6.5	\$6.5	\$2.0	\$14.9	\$14.9	\$14.9	-	-	\$59.7
Total Investment	\$19.6	\$6.5	\$13.3	\$12.8	\$8.2	\$16.6	\$16.7	\$14.9	-	-	\$108.6

* Indicates Activity Not Programmed

\$ million

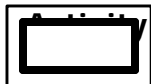


Business Case: Capital Program – AFC Equipment Replacement

Replacement Program	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
NEPP Program - PM	1.5	2.3									
Bus Farebox Overhaul			4.2	4.2	4.2						
Parking – Credit Card	4.7										
NextFare 5 - Completion	6.6	1.0	0.2	0.2	0.2						
PCI Compliance	1.9	0.3	0.3	0.3	0.3	0.3	0.3				
Ethernet for Faregates	1.3										
Coin Collection Devices	2.3										
Fare Vendor Update		1.1	1.1	1.1	1.1	1.1	1.1				
Currency Processing	0.6	1.5	0.8								
Revenue Facility Equip	0.7	0.3	0.2	0.5	0.4	0.3	0.4				
Programmed Total	\$19.6	\$5.4	\$5.5	\$4.7	\$4.6	\$0.3	\$0.4	-	-	-	\$40.5
Metrorail AFC Replacement*			7.6	23.0	23.0	23.0					
Metrobus Validators*			0.8	2.2	2.2	2.2					
Parking Devices*			0.1	0.3	0.3	0.3					
Central Data System*			2.2	0.7							
Not Programmed Total	-	-	\$11.0	\$26.0	\$26.0	\$26.0	-	-	-	-	\$89.0
Total Investment	\$19.6	\$5.4	\$16.5	\$30.7	\$30.6	\$26.3	\$0.4				\$129.5

* Indicates Activity Not Programmed

\$ million



Indicates Cost Avoidance Opportunity (total = \$8.4m)



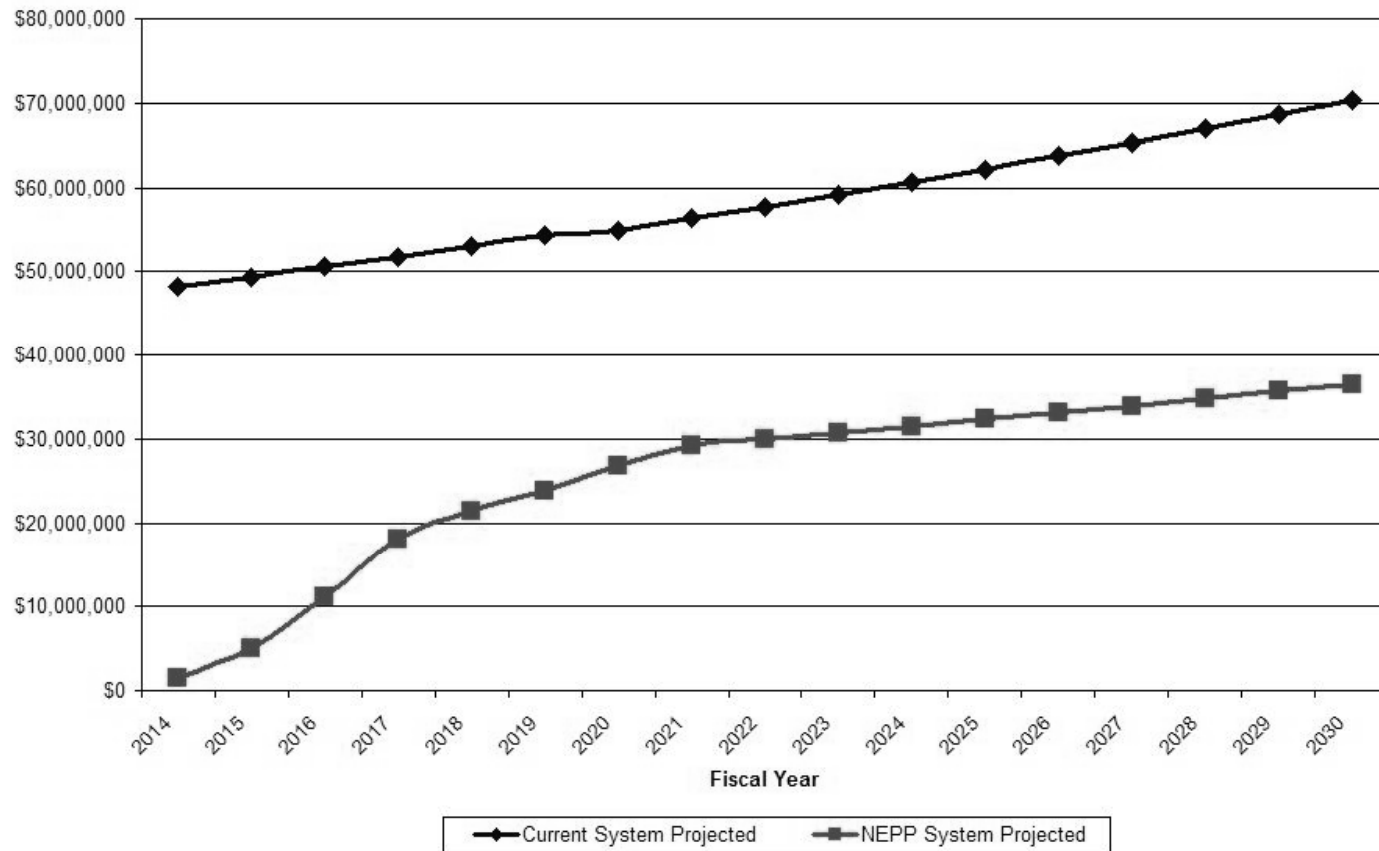
Business Case: Opportunity Cost

- Lower maintenance cost
- New equipment warranty
- Extended system life
- Overhaul deferred to 2030
- Non-proprietary architecture



Forecast Cost Savings

Projected Current System Operating Cost vs. NEPP System Operating Cost





Agency-wide Buy-in

- Strong cross-departmental coordination
 - Executive leadership team
 - Key representatives from all departments
 - Operating – Metrorail, Metrobus, MetroAccess, Parking
 - Non-operating – Finance, Treasury, IT, Planning, Marketing, Customer Service, Performance and Engineering

- Bi-weekly team conference calls
 - Status updates, upcoming events and key milestones
 - White papers on key issues



Accomplishments to Date

- Issued Step-1 of the two-step RFP process
 - Qualifications and technical approach to 30% design
 - Minimum market capitalization of \$1 Billion in CY10
 - Systems integration experience; program references
- Received and evaluated proposals
 - ACS, Accenture, CSC, Cubic, FIS, IBM and Revere Group
- Must qualify in Step-1 to engage in Step-2



Next Steps

- Issued Step-1 RFP documents December 30, 2010
- Conducted pre-proposal conference January 12, 2011
- Received Step-1 proposals February 25, 2011
- Completed Step-1 process April 29, 2011

- Issue Step-2 documents June 30, 2011
- Receive Step-2 proposals September 2011
- Evaluation and negotiations Fall 2011
- Award 1st Quarter 2012
- Proofs of concept Late Summer 2012
- Testing/pilots Late Summer 2013
- Phased implementation 2014 - 2017



Transit Industry Leadership

- Transit agency roundtable discussions
 - NYMTA, CTA, SEPTA, DART, LAMTA, UTA and WMATA
- Collaborative discussions
 - Payment approaches; PAYG and PIA
 - Risk models for payments processing
 - Standards-based solutions and infrastructure
- WMATA will host next meeting - June 14, 2011



New Revenue and Ridership Model

- Links new fare system with a fare model for improved fare structure analyses
- Supports Board of Directors fare policy guidelines adopted November 2010
- Improves analytics of alternatives that adversely impact customer opinion of fares – e.g. Peak-of-the-Peak



New Revenue and Ridership Model

- Goals
 - Conduct market research, evaluate fare structure options
 - Develop model to test alternative scenarios
 - Create new model to reflect current trends and behavior



Fare Policy Issues

- Near Term - <6 months
 - Assess options for enhancing SmarTrip card loading on Metrobus
 - Examine expansion of third party sales and commissions
- Longer Term - <18 months
 - Develop strategy to reduce existing magnetic media
 - Develop strategy to reduce cash used in system
 - Develop options for SmarTrip card pricing



New Electronic Payments Program

Current State



Today's Metrorail fare vendor.



Customers buying fares at Union Station.

Future State



Next generation fare vendor, payment token, trip planner and service status tool at WMATA.