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Metropolitan Transportation Authority

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**OPERATIONS COMMITTEE
SEPTEMBER 15, 2011**

**SUBJECT: UPDATE OF TRANSIT ACCESS PASS (TAP) AND FARE GATE
INSTALLATION**

ACTION: RECEIVE AND FILE

RECOMMENDATION

Receive and file status report on the TAP Program and fare gate operation.

ISSUE

Update on TAP implementation and fare gating and respond to requests by Directors Fasana, Wilson and Villaraigosa regarding timeline and achievable steps and to complete regional TAP implementation.

DISCUSSION

UFS/TAP

- TAP is currently the largest regional smart card based fare payment system in the United States
- The LA Region has the largest smart card based bus fleet in the country. 3000 Metro buses (including spares and contracted lines) plus Muni buses
- The LA Region sells more smart card based passes than any other system in the United States – over 650,000 various TAP passes are sold each month over the internet, on Ticket Vending Machines, on buses and at customer centers and retail outlets.
- The LA Region has the largest retail sales network of any transit agency in the USA – over 600 sales devices support the region's customers
- The LA Region has the largest electronic clearinghouse that support funds transfers from retail outlets and operators than any transit agency in the US.

- More than 650 different fare products are supported on TAP cards for Metro and Muni agencies – it is the most flexible fare system on smart cards in US today
- The LA Region has the largest Institutional and employer sponsored smart card based fare program in the country – K-12 schools, colleges, public and private businesses
- The LA Region has the only paratransit service in the country that supports multiple Muni and Metro fixed route operators on TAP combined with taxi cabs on Visa – all in one card
- The LA Region has the only transit smart card with retail use on Visa for the unbanked community in the co-branded TAP-Visa card.
- LACMTA has the largest Near Field Communication (NFC) based hand-held validators for off-board fare inspection in the country – 350+ units now deployed with LA County Sheriffs
- Each month, 15 million fare transactions occur on the regional TAP card
- \$9 million of TAP fares are sold monthly to support Metro and Muni customers
- 2 million cards were distributed to regional customers since 2004

Regional Implementation

- Currently nine systems and 3,800 buses are on the TAP system.
- These Operators include Metro, AVTA, Culver CityBus, Foothill Transit, Gardena Municipal Bus, Montebello Bus Lines, Norwalk Transit, Santa Clarita Transit, Torrance Transit. LADOT is in the process of installation planning, Long Beach Transit is temporarily disabled from TAP; and Santa Monica Bus is not a current participant.
- The regional participants currently process over 15 million individual TAP transactions per month and settles \$9 million of sales transactions each month.
- All TAP transactions are either stored-value or one of 650 different prepaid TAP passes

- Business rules were adopted by regional TAP partners in December 2010
- Access Services implemented a multi-platform co-branded Visa-TAP card.
- Currently another 40 Local Transit Service Systems (LTSS) small transit agencies are not on TAP
- \$4 million was set aside for the LTSS agencies to install TAP equipment on their vehicles.
- It is projected that fewer than 11,000 daily transfers are made from municipal bus lines to the Metro System (see chart below).

Muni to Metro Transfer Activity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Antelope VTA	125	1.2	1.2	1.2
	Carson	109	1.0	1.0	2.2
	Compton TA	58	.5	.5	2.7
	Culver City	33	.3	.3	3.0
	Foothill Transit	986	9.2	9.2	12.3
	Gardena	238	2.2	2.2	14.5
	Glendale Bee	16	.1	.1	14.6
	LADOT	2085	19.5	19.5	34.1
	Long Beach Tran	5167	48.3	48.3	82.4
	Montebello	213	2.0	2.0	84.4
	Norwalk	155	1.5	1.5	85.9
	Orange County	261	2.4	2.4	88.3
	Santa Clarita	16	.1	.1	88.5
	Santa Monica	639	6.0	6.0	94.4
	Simi Valley	16	.1	.1	94.6
Torrance	177	1.7	1.7	96.2	

Amtrak	79	.7	.7	97.0
LAX Shuttle	19	.2	.2	97.2
unknown	304	2.8	2.8	100.0
Total	10697	100.0	100.0	

- It is projected that fewer than 4,000 daily transfers are made from municipal bus lines to the Metro Rail System (see chart below).

	Agency	Percent	RAIL Transfers
	LBT	40%	1,280
	LADOT	20%	640
	Foothill	15%	480
	Montebello	10%	320
	AVTA	5%	160
	BBB	5%	160
	All others	5%	160

- It is projected that fewer than 1,000 daily transfers are made from municipal bus lines to the Metro Red and Purple Lines.
- It is projected that fewer than 12,000 transfers are made from Metrolink to the Metro Rail system – most of which are made to the Red Line at Union Station.
- Fare media used by these transferring patrons includes Metrolink, EZ Transit Pass and Metro-to-Muni transfers – all of which are non-TAP Paper Flash Passes.
- Non-TAP Paper Flash Passes must be converted to TAP enabled fare media to complete the regional program and to enable patron access through locked TAP fare gates at rail stations.

Fare Gates and Test Locking

- Locking gates requires paper fare media to be converted to TAP fare media to enable patron access through locked fare gates at rail stations.
- Patrons transferring with paper Metrolink passes, EZ Transit Passes, Metro-to-Muni transfers and non-Tap Metro fare media will need a TAP card to pass through a locked fare gate.
- The last remaining paper student passes will be converted to TAP by 1Q 2012. Support from external partners and consideration for changes in regional transfer policies may help foster ease of implementation and improve fare systems integration
- Staff has developed an implementation plan to test locking gates that will quantify the numbers of transfers and non-TAP fare media presented at the selected test stations.
- Four stations have been identified as test environments for gate locking. These stations have one entrances and limited external transfer activity. These stations are: Hollywood/Western; Vermont Beverly, Wilshire/Normandie and Wilshire/Western.
- The approach includes notifying patrons in advance of testing; providing Metrolink and EZ Transit Pass patrons with TAP-enabled fare media alternatives; and converting the Ticket Vending Machines to TAP-only operations.
- Testing would commence in October with a target goal of expanding a locked gate environment throughout the Metro Red and Purple Lines in 2012.

Timeline

- Many milestones have been achieved in the implementation of UFS/TAP. Below is a chart that summarizes status and completion of program deliverables.

Base Contract	Base	Open Items	Date to Complete
UFS Equipment Installations			
3,000 MTA bus fare boxes and division infrastructures (local servers and vaulting equipment;	Complete		

Update of TAP & Fare Gate Installation

wireless access)			
600 Ticket Vending Machines and Validators	Complete	<ul style="list-style-type: none"> Relocation of Light Rail Validators in process TVM transition from "proof of payment tickets" to smart cards 	<ul style="list-style-type: none"> Calendar 2013 (civil work required) FY2012
500 Mobile Phone Validators for LASD fare inspection	Complete	(Original Hand-held Validator upgrade)	
400 Driver Control Unit (DCU) & Light Validator (LV)	Complete	(Original Bus Stand-beside Unit upgrade)	
800 Vendor Network Sales Devices	Complete		
Metro Central Computer (back office)	Complete		
Municipal Operators on Contract			
AVTA, Culver City, Foothill, Montebello, Norwalk, Santa Clarita	Complete	Modifications to reports, and changes to support separation of 2 or more garages for single operators in process	FY2012
Gardena Bus	Complete	In cash operation; in process to enable TAP stored value sales	TBD
Torrance	Complete	In cash operation	TBD
LADOT	In process	Pre-installation planning in process	2013
Long Beach	Complete	Temporarily disabled from TAP	TBD
Big Blue Bus	Not on contract	N/A	N/A
Base Contract	Base	Open Items	Date to Complete
Fare Media Transition to TAP			
Stored Value Sales on Metro	100% complete		
MTA Weekly & Monthly Fixed to 7 & 30 day Rolling (Seniors and Regular rider category)	100% complete		
Sales of TAP cards for Day Passes on board buses	100% complete		
MTA K-12 passes and new \$1.00 student cash fare	75% complete passes; 100% complete new cash fare	New sales devices installed at schools selling passes; applications available for students at all outlets New \$1 cash fare implemented for students without passes	December 2012

LACTOA (Disabled) Passes	100% complete		
County Buy-Down	100% complete		
Annual Employer Passes	100% complete		
College/Vocational Passes	100% complete		
Corporate Pass Program	100% complete		
Jury Pass Program	100% complete		
ASI Paratransit	100% complete		
1 to 8 Day Visitor Passes	100% complete		
VIP Board Member Passes	100% complete		
TVM issued rail one-way ticket and paper ticket Day Pass	In process		4 th Qtr FY2012
TVM Issued one-way + Metro-to-Muni transfers and single Interagency Transfers (IATs)	In process	Select TVMs may continue to vend proof-of-payment after TVMs are fully converted to TAP	4 th Qtr FY2012
MTA Bus issued Metro-to-Muni paper interagency transfers (IATs)	N/A	Metro will issue paper IATs but TAP is able to load and transact IATs electronically	
Muni Bus issued Muni-to-Metro paper interagency transfers (IATs)	N/A	Can remain on paper; cease IATs on subway only. Less than 0.25% of the 1% transfer riders impacted	
Tokens used as base fare – bus & rail TVMs	N/A	No changes – can be used as base fare equivalent	
EZ Transit & EZ Metrolink		See below – was not in original base contract specifications. The base contract had an option for a separate Card Loading Validation Machine (CLVM)	
NOT in ORIGINAL BASE UFS Contract			
Additional UFS Equipment			
Regional Central Computer for Municipal Operators	Complete		
Rail Fare Gates	Complete	100% Hardware installed Now in temporary "free spin" Concession lights with	TBD

		patron counters installed	
Limited Use Smart Cards	Complete	Software tested; cards procured for potential short term special event usage	
Co-branded Visa – TAP	Complete	"TAP n' Go" account based pilot on-going;	
Co-branded Visa – TAP – ASI	Complete	TAP on Metro/Muni fixed route service; Visa on ASI taxi cab contractors	September 2011
Mobile Light Validators	In Process	Accommodates non-TAP agencies and also facilitates rear door boardings and distance based fares	2013 (potential pilot on limited small operator in 2012)
CCTV Cameras & Gate Phones (NOTE: these are not UFS equipment- they complement gated stations and are funded with Prop 1B Homeland Security grant)	In Process	Civic, Pershing, Wilshire/Normandie & Union Station have cameras installed. Vermont/Beverly, Wilshire/Western, Hollywood/Western to follow. 7 remaining stations to be installed thereafter	2013
Regional TAP Issues			
Regional Business Rules and Financial Clearing & Settlement adoption	Completed		GMs approved March 2011
Financial Clearing	Completed	Financial clearing implemented April 2011 and is ongoing monthly. MTA provided draft MOU for Munis	
Fare Media Introduced after Base Contract Awarded			
Metrolink EZ Pass Transfer	Under discussion	Paper passes and tickets bearing the EZ logo was introduced after UFS base contract. Several options to migrate to TAP have been presented – under discussion	TBD
Rider Relief Discount Coupons	Under discussion	Paper scripts are issued to subsidize Metro passes – financial reconciliation requires MTA staff to manually count individual coupons exchanged at vendor locations. Fraud and abuse also a concern.	TBD

		Several TAP options under consideration	
EZ Transit Pass	In process	EZ Transit fare media introduced after UFS contract award requires visual inspection – New stickers on TAP cards to be used for non-TAP agencies. (See low cost Mobile Light Validators above – can be used by Non-TAP agencies for electronic smart card verification)	4 th Qtr FY12

Key Milestones Achieved

- 2002 Contract Award to Cubic Transportation Systems, Inc.
- 2003 Metro Gold Line to Pasadena - Ticket Vending Machines installed
- 2004 Division 9 (San Gabriel Valley) Pilot Fare Box installation
 - Metro employee badges and building access combined to one ID badge
 - Metro Orange Line TVMs and SAVs installed (modification to base)
- 2005 All 11 bus divisions and Rail TVMs and SAVs installed
- 2006 UCLA I-TAP pilot on TAP smart cards
 - Annual & Business TAP for employers launched
 - Contract for Regional TAP Service Center awarded to ACS
- 2007 Santa Clarita fare boxes installed
- 2008 Culver City launches first TAP stored value pilot
 - Gating contract awarded to Cubic (modification to base)
- 2009 Metro Paper Day Passes convert to TAP
 - Metro Gold Line Eastside Extension TVMs installed (modification to base)
 - 4 station Gating Pilot launched (Union, Pershing, Westlake, Normandie)
 - Muni installations at Norwalk, Montebello, Gardena, Foothill, AVTA complete
 - Electronic funds sweep of retail outlets for TAP sales launched
- 2010 Gating Installation completes; "concession lights" rider counter installed
 - Visa TAP pilot launched to unbanked
 - Metro Sales of Stored Value launched

- Mobile Phone Validators (cell phone) issued to LASD
- 2011 ASI Visa – TAP completed
- Torrance Transit fare box installation complete
- On-board sales of Day Pass TAP card launched
- LADOT prepares for TAP installation
- 4 station "locked gate" test to start September

Looking Forward (Timeline Continued)

Staff presented a Regional Fare System Plan (RFSP) that outlined steps for completion of the regional UFS/TAP system. Below is an update of the RFSP

Technology Selection	COMPLETE
System Procurement	COMPLETE
Regional Customer Service	COMPLETE
Maintenance Agreement	COMPLETE
Central Computer	COMPLETE
System Acceptance	COMPLETE
Operating Rules	COMPLETE
Regional Capital Installation	COMPLETE
Financial Reconciliation of "pilot"	COMPLETE
Metro Stored Value	COMPLETE
Routine Financial Settlement	COMPLETE
Locked Gate Testing	Q4 2011
Transfer Policy Modification Adoption	Q4 2011
Metro Fare Media Conversion	Q1 2012
Subway Locked Gate Pilot	Q1 2012
System Expansion	Q1-4 2012
Incremental RFS Conversion	Q1-4 2012
Transfer Conversion	Q1 2013

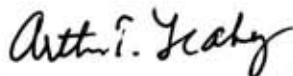
NEXT STEPS

Staff will continue to work with Metrolink and EZ Pass partners for phased solutions to their payment system. We will also continue to work with Gardena Transit and Torrance Transit on their TAP enabled fare boxes, and with Long Beach Transit and Santa Monica Big Blue Bus to evaluate their preference for regional integration. A test to lock gates will be implemented from September through November, 2011. Staff will also be working to migrate "proof of payment" tickets on TVMs, as well as pilot testing low cost Light Validators for smaller Non-TAP operators to verify TAP cards.

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