

**Board Report**

File #: 2018-0213, **File Type:** Contract

Agenda Number: 37.

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JUNE 21, 2018**

**SUBJECT: TAP FAREBOX AND STATION VALIDATOR UPGRADE
PROJECT UPDATE, BUDGET, AND SCHEDULE**

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATIONS

AUTHORIZE the Chief Executive Officer to:

- A. ESTABLISH a Life-of-Project budget of \$45,000,000 for the purchase of bus farebox and station validator hardware and installation, and necessary software upgrades. The \$45,000,000 will provide funding for the subsequent contract recommendations (Items B to F);
- B. AWARD sole source Contract No. PS53915000 to Genfare SPX, Inc., as the original equipment manufacturer, for procurement of bus farebox, motherboard, farebox lid, and other hardware components to upgrade the fareboxes in the amount of \$10,331,252, inclusive of sales tax;
- C. EXECUTE Modification No. 7 to Contract No. PS30203139, with Axiom xCell, Inc. ("Axiom"), for software modifications to enhance security and increase compatibility to the fare enforcement app in the amount of \$167,122; increasing the total contract value from \$2,000,944.20 to \$2,168,066.20;
- D. NEGOTIATE and execute Modification No. 154 to Contract No. OP02461010, with Cubic Transportation Systems, Inc. ("Cubic"), for the purchase and installation of station validators, fare collection software modifications, security enhancements and system integration oversight in the not to exceed amount of \$22,104,750, increasing the total contract value from \$270,601,808, to \$292,706,558;
- E. NEGOTIATE and execute a Memorandum of Understanding with municipal operators who require fare collection system upgrades and outline requirements, pricing and payment schedule; and
- F. AMEND the FY19 budget for an additional 11 Full-Time Employees (FTEs) and \$1,944,531 to expedite bus farebox installation to be ready for new security requirements for the TAP mobile app and for other fare payment technologies.

ISSUE

On April 26, 2018, the Board of Directors approved programming of up to \$55 million to upgrade bus farebox equipment and rail station validators currently beyond their useful life. This upgrade will enhance security, prepare for new payment technologies and ensure near real-time communications.

Staff now returns to the Board with a recommendation for two contract modifications and a sole source contract award to ensure a seamless transition between the old and new equipment.

DISCUSSION

Staff recommended a multi-phase upgrade approach to address equipment obsolescence, enhance security of the fare collection system and prepare for new payment technologies including open payments.

The recommended contract award and modifications only address Phase 1. Phase 1 consists of hardware and software upgrades to the fareboxes and station validators to address aging equipment, enhance system security, ensure near real time communications and enable new payment options. Phase 2 consists of additional software enhancements to accept credit and debit card payment (open payments).

Municipal Operators

The municipal operators with aging fareboxes and equipment - Antelope Valley Transit Authority, Culver CityBus, Foothill Transit, GTrans (Gardena), Montebello Bus Lines, Norwalk Transit, Santa Clarita Transit, Torrance Transit, and LADOT - will contract directly with Cubic to upgrade their respective systems. Metro is partnering with the municipal operators to benefit from high-volume purchases.

The upgrades to their systems will ensure their fare collection equipment will be prepared for new technological advances in mobile and credit/debit card payment options.

Procurement Strategy

The procurement strategy for this project is two-part; the recommendations presented in this report are Part 1. Part 2 is the procurement of the bus operator's Driver Control Unit (DCU), a tablet that will be mounted to and controls the bus farebox. Procurement staff is currently procuring the DCU equipment and staff will return to the Board in July for a separate contract award.

The procurement process for Recommendations B, C, and D are summarized below:

A. Sole Source Contract to Genfare SPX, Inc. ("GFI") - Recommendation B

The contract with GFI will include the purchase of new logic boards, farebox lids, garage computers, and other GFI-related hardware (internal cabling, etc.). The farebox lid includes improved visual displays to enhance the customer experience. A comparison of the old and new bus farebox lids is

shown in Attachment D. GFI will be responsible for assembling the farebox offsite with upgraded components, and installation of the smartcard readers.

The upgrade to the TAP GFI farebox and garage computers requires the specialized knowledge that only GFI possesses since GFI was the original manufacturer that provided Metro and other TAP partner agencies with the equipment. There was no SBE goal on this contract by itself, because this company was a subcontractor of the UFS contract with Cubic at the time.

B. Contract Modification to Axiom - Recommendation C

The Modification to the Axiom contract is a software upgrade to the existing fare enforcement Mobile Phone Validators (“MPV”). The software modification will allow the MPVs to process new mobile fare media.

Axiom made a 100% SBE commitment and is currently meeting their SBE commitment with an SBE participation of 100%.

C. Contract Modification to Cubic - Recommendation D

The Cubic Contract Modification will include software development for the driver control units (tablet devices), near real-time communications, system security enhancements, smartcard readers, and station validators. Other services included in the Contract Modification are Project Management oversight for system integration support between the software modifications and vendors who will supply equipment hardware and the installation of the upgraded fareboxes on the three Contracted Services bus fleets and installation of the station validators. TAP and Procurement staff are finalizing negotiations with Cubic and will execute the Contract Modification upon completion, pending Board approval.

Timeline and Staffing

The expedited timeline presented in Attachment E demonstrates design, development and installation of all Metro and Contracted Services buses within 12 months of Board approval. The installation of the upgraded fareboxes on the three Contracted Services bus fleets will be handled and completed by Cubic.

To ensure seamless transition from the old to the new equipment and to protect the manufacturer’s one year warranty, the following replacement plan will be implemented:

1. Staff will remove the old fareboxes and ship them to the vendor
2. The vendor will upgrade the fareboxes with new computer boards and circuitry and return them to Metro
3. Staff will install the upgraded fareboxes and complete the required wiring
4. Staff will also continue to maintain the fareboxes as they do currently

To expedite installation to be ready for new security requirements for the TAP mobile app and for other fare payment technologies, eleven (11) additional full-time employees (FTEs) - ten (10)

Electronic Communication Technicians and one (1) Supervisor - are requested. Operations will be responsible for acquiring and management of the additional employees by December 2018.

Staffing Analysis

The staffing level for the escalated farebox installation effort was determined by maximizing the number of currently available personnel and the hours required to complete the installation within the required time frame. Utilizing existing staff resulted in a shortfall of 11 FTEs.

DETERMINATION OF SAFETY IMPACT

No adverse safety impacts are anticipated.

FINANCIAL IMPACT

The cost of Metro's station validators and farebox refurbishment for Metro and the TAP partner agencies is estimated to be a total of \$55 million. This includes \$45 million for all Metro costs of equipment purchase, installation, and necessary software upgrades as well as \$10 million for the upgrade cost of the other nine municipal operators. Metro staff will work with the municipal operators to develop a cost sharing plan for the \$10 million in TAP partner agency upgrades.

Impact to Budget

Upon Board approval, \$55 million will be added to the FY19 Budget. The \$55 million total project cost will be funded through a combination of \$27.5 million in State Local Partnership Program (LPP) formula funds and \$27.5 million in local funds, including cost sharing provided by the municipal operators. The State LPP funds require a dollar for dollar match of local funds and are not eligible for bus and rail operations. The Executive Officer of TAP and Project Manager will be responsible for budgeting costs in future years, if needed. The Cost Center manager in Operations will be responsible for budgeting FTE labor costs in future years.

ALTERNATIVES CONSIDERED

The alternative to the proposed farebox and station validators upgrades is to not proceed. This is not recommended as customers will not benefit from the new payment technologies, and frequent equipment breakdowns may result in lost revenue.

As Metro expedites rail construction projects in preparation for the 2028 Summer Olympics, it is important that TAP equipment is also upgraded to complement the enhanced infrastructure and provide visitors state-of-the-art fare payment options.

NEXT STEPS

- Upon approval by the Board, staff will execute the sole source contract with GFI and execute the Contract Modifications with Cubic and Axiom to proceed with upgrading TAP fareboxes and station validators

- Staff will draft and execute Memorandum of Understanding (MOU) with each municipal operator to determine pricing scheme and payment schedule
- With Board approval, Operations will move forward with the recruitment and training of 11 additional FTEs by December 2018
- Staff will return to the Board in July to seek approval for Part 2 of the procurement: approval to award contract for the purchase of the tablet Driver Control Units (DCU)
- Complete installation is expected by June 2019

ATTACHMENTS

Attachment A - Procurement Summaries

Attachment B - Contract Modification/Change Order Log(s)

Attachment C - DEOD Summaries

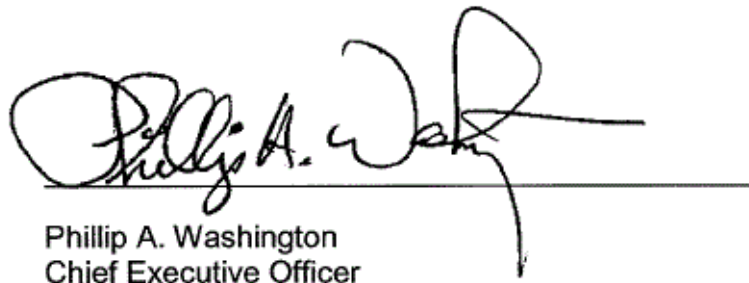
Attachment D - Comparison of Old and New Farebox Lids

Attachment E - Timeline for TAP Equipment Installation

Attachment F - Bus Farebox and Station Validators Upgrade Equipment Quantities

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Reviewed by: Nalini Ahuja, Chief Financial Officer, (213) 922-3088
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY – RECOMMENDATION B
TAP FAREBOX UPGRADE PROJECT
GENFARE SPX, INC. / PS53915000

1.	Contract Number: PS53915000	
2.	Recommended Vendor: Genfare SPX, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP–A&E <input checked="" type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: June 6, 2018	
	B. Advertised/Publicized: N/A	
	C. Pre-Proposal Conference: N/A	
	D. Proposals Due: June 11, 2018	
	E. Pre-Qualification Completed: Pending	
	F. Conflict of Interest Form Submitted to Ethics: June 11, 2018	
	G. Protest Period End Date: N/A	
5.	Solicitations Picked up/Downloaded: 1	Bids/Proposals Received: 1
6.	Contract Administrator: Anush Beglaryan	Telephone Number: (213) 418-3047
7.	Project Manager: Mauro Arteaga	Telephone Number: (213) 922-2953

A. Procurement Background

This Board Action is to award sole source Contract No. PS53915000 issued in support of upgrading existing TAP fareboxes in its fleet of revenue buses.

The Request for Proposal (RFP) was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

One Amendment was issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on June 8, 2018 extended the proposal due date.

A total of one proposal was received on Monday, June 11, 2018.

B. Evaluation of Proposals

This is a sole source procurement due to the nature of the work. Genfare is the original equipment manufacturer of Metro's TAP fareboxes. It has no authorized third party service providers. Genfare has an in-depth understanding of the operation of the TAP fareboxes since 2002. The upgrade required is extensive, requiring custom wiring and the replacement of all internal Genfare custom logic boards. Genfare has the necessary specialized test equipment, propriety knowledge and experience to understand the TAP fareboxes, and the ability to source otherwise custom and

obsolete components. Staff from TAP Program conducted a technical evaluation of the proposal and deemed the proposal technically responsive.

C. Cost/Price Analysis

The recommended contractor’s price proposal was evaluated in compliance with Metro’s Acquisition policies and procedures. Staff conducted a cost analysis of the price proposal. Based on the cost analysis, technical analysis, fact-finding, clarifications, and negotiations with the proposer, the final agreed to price of \$10,331,252 has been determined to be fair and reasonable.

	Proposer Name	Proposal Amount	Metro ICE	Award Amount
1.	Genfare	\$10,331,252	\$11,917,267	\$10,331,252

D. Background on Recommended Contractor

The recommended firm, Genfare, a division of SPX Corporation located in Illinois, has been in business for 38 years and is a leader in the field of fare collection systems. Genfare’s was first in the industry for items such as electronic registering fareboxes, magnetic card reader on fareboxes, read/write magnetic card processing unit, fully validating fareboxes and much more. Genfare has provided fare collection systems to approximately 300 agencies throughout the United States and Canada and built more than 80% of the fareboxes currently in use in these countries. Genfare’s proposed upgrade will allow Metro to extend the life of its fareboxes and continue to support all mainstream fare media that is now available. Genfare has identified key personnel who will be working closely with staff to ensure successful implementation and completion of the project.

Genfare has successfully completed similar projects for Central Ohio Transit Authority, City of Santa Monica, Big Blue Bus, and Porterville Transit. Additionally, Genfare is currently also working with Nashville MTA, Broward County Transit, and Transit Authority River City.

Genfare has provided technical oversight of Metro’s design review, testing and installation of the existing TAP fareboxes since 2002.

PROCUREMENT SUMMARY – RECOMMENDATION C
TRANSIT ACCESS PASS (TAP) MOBILE PHONE VALIDATOR
AXIOM xCELL, INC. / PS30203139

1.	Contract Number: PS30203139		
2.	Contractor: Axiom xCell, Inc.		
3.	Mod. Work Description: Software Upgrade		
4.	Contract Work Description: Mobile Phone Validator (MPV) for fare enforcement electronic query of TAP cards		
5.	The following data is current as of: May 18, 2018		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	February 1, 2014	Contract Award Amount: \$348,018.00
	Notice to Proceed (NTP):	February 1, 2014	Total of Modifications Approved: \$1,652,926.20
	Original Complete Date:	November 29, 2019	Pending Modifications (including this action): \$167,122.00
	Current Est. Complete Date:	November 29, 2019	Current Contract Value (with this action): \$2,168,066.20
7.	Contract Administrator: Anush Beglaryan		Telephone Number: (213) 418-3047
8.	Project Manager: Mauro Arteaga		Telephone Number: (213) 922-2953

A. Procurement Background

This Board Action is to approve Contract Modification No. 7 to upgrade the Mobile Phone Validator (MPV) software to include and process Desfire fare media and security keys as implemented by Cubic Transportation Systems, Inc., for TAP and implement proprietary iPhone wakeup response signals for virtual fare media. Metro is in the process of upgrading the entire fare collection system to include fare media that supports higher security levels. As such, the MPVs will need to implement the higher security level.

The MPV application was developed by Axiom xCell, Inc., in 2014 specifically for Metro and is installed on over 350 mobile phones which allows fare enforcement personnel to electronically query TAP cards to determine if riders are in compliance with Metro's fare policy. Therefore, Axiom xCell, Inc. is the only company that can modify the existing application to include these enhancements due to the sensitive encryption system and programming that is unique to TAP.

ATTACHMENT A – Procurement Summaries

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

In February 2014, Contract No. PS30203139 was awarded to Axiom xCell, Inc. to develop, test, and provide support for a software application for a handheld fare inspection device.

Please refer to Attachment B – Contract Modification/Change Order Log.

B. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon price analysis, technical evaluation, independent cost estimate, and negotiations.

Proposal Amount	Metro ICE	Negotiated Amount
\$167,122.00	\$169,658.00	\$167,122.00

PROCUREMENT SUMMARY – RECOMMENDATION D
UNIVERSAL FARE SYSTEM
CUBIC TRANSPORTATION SYSTEMS, INC. / OP02461010

1.	Contract Number: OP02461010		
2.	Contractor: Cubic Transportation Systems, Inc.		
3.	Mod. Work Description: Purchase and installation of station validators, fare collection software modifications, security enhancements and system integration oversight.		
4.	Contract Work Description: Universal Fare System		
5.	The following data is current as of: June 12, 2018		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	2/20/2002	Contract Award Amount: \$84,003,444
	Notice to Proceed (NTP):	3/7/2002	Total of Modifications Approved: \$186,433,027
	Original Complete Date:	9/1/2007	Pending Modifications (including this action): \$22,104,750
	Current Est. Complete Date:	12/31/2024	Current Contract Value (with this action): \$292,541,221
7.	Contract Administrator: Anush Beglaryan		Telephone Number: (213) 418-3047
8.	Project Manager: Mauro Arteaga		Telephone Number: (213) 922-2953

A. Procurement Background

This Board Action is to approve Contract Modification No. 154 for the procurement and installation of station validators, fare collection software modifications, security enhancements and system integration oversight as part of the Farebox and Rail Station Validator Refurbishment Plan.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy.

On February 20, 2002, Contract No. OP02461010 was awarded by the Metro Board to Cubic Transportation Systems, Inc. (Cubic). The Contract provides a countywide fare collection system to serve Metro's public transit customers. Cubic developed the NextFare software application and related databases which is the core technology managing the entire Transit Access Pass (TAP) network consisting of bus and rail equipment and devices. TAP fareboxes on buses and station validators at light rail stations were purchased in 2002. This equipment has exceeded its life expectancy by five years and is not compatible with current and future fare collection

ATTACHMENT A – Procurement Summaries

technologies. Upgrade options include hardware and software that will enhance system security, communicate in real time, and support the future TAP mobile app and other new payment technologies.

Please refer to Attachment B – Contract Modification/Change Order Log.

B. Cost/Price Analysis

Metro staff is in the process of finalizing negotiations with Cubic to perform the services and will negotiate and perform a cost analysis to deem the proposal amount fair and reasonable prior to execution of Modification No. 154.

Proposal Amount	Metro ICE	NTE Amount
\$22,104,750	\$23,733,500	\$22,104,750

**CONTRACT MODIFICATION/CHANGE ORDER LOG – RECOMMENDATION C
AXIOM xCELL, INC.
TRANSIT ACCESS PASS (TAP) MOBILE PHONE VALIDATOR / PS30203139**

Mod. No.	Description	Status	Date	Amount
1	Additional application coding	Approved	8/11/2014	\$20,774.41
2	Administrative change	Approved	11/03/2015	\$0.00
3	Add key features and application coding	Approved	2/18/2015	\$79,182.79
4	Extend contract term	Approved	9/8/2015	\$0.00
5	Add enhancements and extend contract term	Approved	11/10/2015	\$614,000.00
6	Add enhancements and extend contract term	Approved	9/28/2017	\$938,969.00
7	Software Upgrade	Pending		\$167,122.00
	Modification Total:			\$1,820,048.20
	Original Contract Value:			\$348,018.00
	Total Contract Value:			\$2,168,066.20

Attachment B – Contract Modification/Change Order Log

**CONTRACT MODIFICATION/CHANGE ORDER LOG – RECOMMENDATION D
CUBIC TRANSPORTATION SYSTEMS, INC.
UNIVERSAL FARE SYSTEM / OP02461010**

Mod. No.	Description	Status	Date	Amount
1	Table X-1 Milestone Changes	Approved	8/19/2002	\$0.00
2	Ticket Vending Machine Soft Keys	Approved	9/4/2002	\$0.00
3	San Fernando Valley BRT, Additional Quantities	Approved	4/13/2004	\$7,454,844
4	Modification to General Conditions	Approved	10/8/2002	\$0.00
5	TVM Third Coin Hopper	Approved	8/22/2003	\$416,858
6	Stand Alone Validator Video Clips	Approved	3/3/2003	\$0.00
7	Gold Line Functional Test Waiver	Approved	2/13/2003	\$0.00
8	Languages Supported	Approved	2/13/2004	\$0.00
9	Modifications to Compensation & Payment	Approved	2/20/2003	\$0.00
10	Smart Card to Smart Card Value Transfer	Approved	3/3/2003	\$0.00
11	SCADA Cable Installation on Gold Line	Approved	3/3/2003	\$48,476
12	Gold Line Functional Test Waivers	Approved	4/8/2003	\$0.00
13	Farebox Coin Dejam	Approved	4/8/2003	\$0.00
14	Change in Milestone Schedule	Approved	4/16/2003	\$0.00
15	Time Extension, Gold Line	Approved	7/1/2003	\$0.00
16	Change from Datastream MP5 to Express Metrix	Approved	7/1/2003	\$0.00
17	Final Design Review, changes in CDRLS	Approved	7/18/2003	\$0.00
18	Deletion of Printer from Hand Held Validator	Approved	1/6/2004	-\$35,252
19	Variable Message Sign	Approved	2/19/2004	\$243,828
20	Changes to Compensation and Payment	Approved	4/7/2004	\$0.00
21	PCMCIA Card Slot use for WAN	Approved	4/13/2004	\$0.00
22	Data Transmission System	Approved	6/22/2004	\$675,000
23	Mifare Card Initialization and Verification	Approved	6/8/2004	\$9,629
24	Farebox Mounting Adapter for NABI Buses	Approved	7/9/2004	\$32,485
25	Provide Regional CDCS	Approved	2/25/2005	\$5,348,335
25.01	Regional CDCS Overhead Rate Adjustment	Approved	1/17/2007	-\$31,621
25.02	Regional CDCS Acceptance Test Participants	Approved	8/7/2008	\$0.00
26	Remove Requirement for Focus Groups	Approved	12/20/2004	-\$111,704
27	Farebox Rotation	Approved	1/4/2005	\$74,967
28	Metro Gold Line Eastside Extension, Fare Equipment	Approved	7/25/2006	\$3,808,722

Attachment B – Contract Modification/Change Order Log

29	Stainless Steel Panels for TVM Alcoves	Approved	4/25/2005	\$45,521
30	Data Communication Cabling for Orange Line	Approved	6/10/2005	\$41,560
31	(Not Used)			
32	Additional Spare Part Quantities for Eastside Ext.	Approved	7/25/2005	\$15,480
33	Mifare Card Functionality on UFS	Approved	8/15/2005	\$33,105
34	Revisions to Project Schedule	Approved	10/26/2000	\$0.00
35	OCU Mount	Approved	11/15/2005	\$87,634
36	(Not Used)			
37	Deductive Change for Line 1.36	Approved	4/6/2007	-\$33,116
38	Installation of Third TVM and Relocation of Two SAVs and Blue Line Willow Station	Approved	7/6/2006	\$10,084
39	Upgrade the CDCS System from IB SSA Disk Storage Subsystem to Fiber Disk	Approved	10/2/2006	\$20,000
40	UFS Equipment for Expo Line	Approved	2/16/2007	\$5,197,204
41	(Not Used)			
42	(Not Used)			
43	HHV, PMOS and CPOS Interim Maintenance Deductive Change	Approved	2/16/2007	-\$162,628
44	UFS Additional Quantities for Contracted Services	Approved	2/16/2007	\$2,499,916
45	Replace Go-Cards with Mi-Fare Cards	Approved	2/16/2008	-\$1,157,850
46	Relocation of Data Probes and Receive Vaults at Division 7	Approved	4/9/2007	\$29,787
47	Revisions to US Base and Regional Manuals for Release to ACS	Approved	4/23/2007	\$46,000
48	Expo Line, Pico Station Infrastructure	Approved	7/18/2007	\$18,542
49	Relocation of UFS Lab Equipment	Approved	6/2/2008	\$106,905
50	Expo 7 th and Metro Additional Infrastructure	Approved	8/30/2007	\$81,719
50.01	Expo 7 th and Metro Infrastructure Deductive change	Approved	8/30/2007	-\$30,173
51	Handheld Validator Holster	Approved	10/16/2007	\$6,184
52	Installation and Testing of Farebox at Transportation Concepts	Approved	3/6/2008	\$16,091
53	Relocate OCUs on Ford Cutaways and MST Buses at Contracted Services	Approved	5/14/2008	\$79,170
54	Installation of one Farebox and Testing for two Fareboxes at Contracted Services	Approved	5/27/2008	\$18,842
55	UFS Quantity Adjustments	Approved	10/9/2008	\$0.00
56	Contracted Bus Service Equipment Change	Approved	12/3/2008	\$36,704
57	Installation and Acceptance Testing of One Farebox at First Transit	Approved	12/19/2008	\$3,040

Attachment B – Contract Modification/Change Order Log

58	Provide UFS Equipment for Expo from Culver City to Venice/Robertson Aerial Station	Approved	3/4/2009	\$304,246
59	Regional CDCS Electrical Power Reconfiguration	Approved	2/9/2009	\$17,186
60	Rail Equipment Warranty and Bus Equipment Warranty	Approved	2/19/2009	\$0.00
61	TAP Enables Turnstile Fare Gates for Rail Stations	Approved	4/9/2009	\$10,000,000
62	Provide UFS Equipment for Expo Truesdale Station	Approved	3/4/2009	\$284,167
63	System Support Services	Approved	6/8/2010	\$33,988,558
63.01	SSS, Additional Costs	Approved	3/22/2013	\$677,631
63.02	SSS, Orange Line Credits	Approved	3/22/2013	-\$58,243
63.03	SSS, One-year Extension	Approved	3/22/2013	\$8,148,263
64	\$5 Dollar Bill handling Unit for Fareboxes and TVMs	Approved	7/27/2009	\$304,658
65	Installation of Additional SAVs for Eastside Extension	Approved	1/4/2010	\$34,077
66	Relocation of Wing Gate at MRL Wilshire/Normandie Station	Approved	2/2/2010	\$18,905
67	(Not Used)	Approved		
68	UFS Equipment for Orange Line Extension	Approved	11/2/2010	\$2,749,476
68.01	Transfer Maintenance Dollars to 63.01	Approved	1/25/2013	-\$677,631
68.02	UFS Equipment for Orange Line Extension, Credits	Approved	3/22/2013	-\$10,982
69	Additional TVM at Aviation Greenline Station	Approved	4/2/2010	\$13,031
70	TAP Card Physical Testing	Approved	4/28/2010	\$41,844
70.01	TAP Card Physical Testing	Approved	3/22/2013	\$12,658
71	Concession Light Functionality	Approved	6/30/2010	\$96,726
72	(Not Used)	Approved		
73	API Test Server Imaging	Approved	9/9/2010	\$45,024
74	Contract Services Relocation	Approved	11/1/2010	\$33,854
75	Limited Function Sales Office Terminals, Increase Quantity	Approved	2/15/2011	\$993,795
76	CISCO ASA Acquisition and Implementation for API Test and Production Servers	Approved	2/28/2011	\$59,209
77	Cubic LU Key Installation	Approved	3/3/2011	\$69,097
78	Updates Farebox Configuration to Support ARUB Wireless Security Data Transfer	Approved	3/3/2011	\$40,204
79	Relocation of UFS Test Lab Equipment	Approved	4/25/2011	\$80,911
80	7 Byte UID Support	Approved	4/20/2011	\$362,069
81	Fare Gate Fencing Installation	Approved	4/25/2011	\$24,004

Attachment B – Contract Modification/Change Order Log

	Modifications, North Hollywood and Avalon Stations			
82	Additional TVM at Hollywood/Western Redline Station	Approved	4/25/2011	\$15,531
83	Purchase Drive Control Unit Light Validators DCU-LV	Approved	4/25/2011	\$363,492
84	Install TVMs at Three Metro customer Centers	Approved	6/6/2011	\$386,680
85	Cubic Modification to Gate Software/Locking Commands	Approved	6/29/2011	\$111,188
86	UFS Equipment for Expo Phase I Farmdale Station	Approved	7/26/2011	\$415,184
87	Relocation of TVMs at the Green Line Long Beach Station	Approved	8/25/2011	\$15,909
88	Mobile Validator Non-Recurring Engineering System Development	Approved	10/12/2011	\$611,677
89	Expo Pico Station North Platform TVM/SAV Work	Approved	3/5/2012	\$17,592
90	Deletion of Contract Line Items 1.03, 1.04 & 1.33	Approved	2/15/2012	-\$20,622
91	Orange Line Installation of 12 Metro Provided SAVs	Approved	2/15/2012	\$34,483
92	(Not Used)			
93	(Not Used)			
94	System Support Services, Six Year Extension	Approved	7/1/2013	\$55,000,000
94.01	(Not Used)			
94.02	System Support Services for Expo II and Foothill Extension	Approved	3/2/2015	\$1,152,749
94.03	Maintenance Support Services for 54 TVMs	Approved	4/14/16	\$838,211
95	UFS Equipment Storage Costs	Approved	6/13/2012	\$4,129
96	Faregating, Three Additional Swing Gates	Approved	2/4/2013	\$44,611
97	Green Line Faregating Additional Fire Key Switches at Vermont Station	Approved	4/1/2013	\$8,392
98	Emergency Swing Gate Upgrades	Approved	4/15/2013	\$252,145
99	Removal of TVM from Wilshire/LaBrea Customer Center	Approved	10/8/2013	\$4,883
100	Supplying and Supporting a Turn Key Mobile Validator System	Approved	7/1/2013	\$2,996,113
101	Bus Division Vault Relocation	Approved	8/1/2013	\$995,940
102	Install One TVM at East Portal Customer Service Center and One at Culver City Station	Approved	10/8/2013	\$252,905
103	El Monte Bus Facility TVMs	Approved	10/15/2013	\$474,753
104	Fare Gate Consoles for Expo 2,	Approved	5/26/2014	\$380,000

Attachment B – Contract Modification/Change Order Log

	Colorado/4 th Street Station			
105	TVM and SAV Relocations	Approved	12/16/2013	\$1,456,632
106	Modification to Nextfare to Allow For Segregation of Facility Specific Data	Approved	1/29/2014	\$647,869
107	Passback Modification	Approved	2/18/2014	\$70,301
108	UFS PCI Compliance	Approved	10/23/2014	\$9,015,319
109	Service Provider Support	Approved	6/14/2014	\$66,777
110	Autoload Segregation by Muni	Approved	6/30/2014	\$111,707
111	SAV Three Distinct Tones	Approved	8/4/2014	\$46,634
112	Modify TAP Vending Machine to Improve Purchases	Approved	8/4/2014	\$250,000
113	ADA TVM Upgrades for CN No. 162 and 150 Replacement TVMs	Approved	8/5/2014	\$416,815
114 A	UFS Equipment for Gold Line Foothill Extension	Approved	8/25/2014	\$1,878,756
114 B	UFS Equipment for Expo Phase	Approved	8/25/2014	\$3,783,200
115	FBX External Interface Spec Changes	Approved	8/19/2014	\$20,488
116	Willowbrook Station Blue Line SAVs	Approved	11/19/2014	\$62,882
117	TAP-In, TAP-In, Transfer Gate	Approved	11/19/2014	\$88,598
118	Virtual Gate Arrangement of SAVs at Gold Line Union Station Entrance	Approved	11/19/2014	\$84,964
119	Conversion of Expo 1 Aerial Stations to Fare Gates	Approved	3/2/2015	\$3,077,952
120	Change in Service Level Agreement for TVM & GC Network Additions at No Cost	Approved	3/2/2015	\$0
121	Emergency Swing Gate External Alarm Mode	Approved	11/19/2014	\$0
122	Installation of Colorado & 4 th Faregates & ESGs	Approved	3/2/2015	\$163,143
123	OCDC Replacement Equipment Software and Installation	Approved	5/12/2015	\$681,068
124	Expo One Claim No. 1 Settlement	Approved	5/26/2015	\$19,648
125	UFS Global Network, Change for Credit/Debit Processing at TVM	Approved	5/12/2015	\$52,735
126	Metrolink Integration Support	Approved	5/12/2015	\$56,073
127	Metro Network Assistance	Approved	5/12/2015	\$48,758
128	Division 13 Bus Operations TVMs	Approved	5/12/2015	\$99,401
129	Fare Equipment Changes at MRL North Hollywood Station	Approved	5/12/2015	\$577,401
130	Installation of Additional TVM at MRL Civic Center Station North Entrance	Approved	7/15/2015	\$21,593
131	Relocate One TVM From Hawthorne to Hollywood	Approved	9/2/2015	\$31,983
132	Service Provider Support – Deductive Change (Mod 109)	Approved	6/13/2015	-\$66,777
133	Additional Emergency Swing Gate for	Approved	6/3/2015	\$10,970

Attachment B – Contract Modification/Change Order Log

	Expo 2			
134	Metrolink Support for LU Encoding	Approved	10/7/2015	\$13,666
135	Emergency Swing Gate Hinge Post Substitution at Expo 2 Bundy Station – No Cost Change	Approved	10/21/2015	\$0
136	Relocation of TVMs at MGL Artesia Station	Pending		\$0
137	(Not Used)			
138	Vertiba Support (Salesforce – CRM)	Approved	8/20/2015	\$9,671
139	Regional Inter Agency Transfer Policy Change	Approved	1/21/2015	\$435,000
139.01	Regional Inter Agency Transfer (IAT) Policy Change	Approved	7/15/2016	\$480,000
140	54 TVMs, purchase and install	Approved	4/14/2016	\$5,194,834
141	(Not Used)			
142	Network, back office station configuration and IAT support	Approved	4/25/2017	\$14,578
143	Reduction in monthly PM services	Approved	5/8/2017	(\$404,550)
144	20 BMV Install Kits	Approved	5/8/2017	\$10,310
145	Sales, Use, Activate, Initialize and read transactions into Nextfare	Approved	5/25/2017	\$0
146	TVM Screen Flow Phase 2	Approved	6/30/2017	\$475,000
147	Revisions to Mod 140/CN 185.03 TVM Deployment Scope of Work	Approved	8/28/2017	\$0
148	405 BMVs and 480 Install Kits	Approved	11/20/2017	\$990,059
149	UFS Equipment for Crenshaw/LAX	Approved	12/1/2017	\$5,920,997
150	CPA Change to Include Terminal ID	Approved	10/18/2017	\$45,487
151	UFS Equipment for Regional Connector	Approved	12/1/2017	\$3,316,556
152	TAP System Patching	Approved	4/4/2018	\$166,337
153	Network Back Office Configuration	Approved	4/12/2018	\$37,222
154	TAP System Wide Upgrades	Pending	6/28/2018	\$22,104,750
	Modification Total:			\$208,537,777
	Original Contract Value:			\$84,003,444
	Total Contract Value:			\$292,541,221

DEOD SUMMARY – RECOMMENDATION B
GENFARE SPX, INC.
TAP FAREBOX UPGRADE PROJECT / PS53915000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small Business Enterprise (SBE) goal for this solicitation. Metro's project manager confirmed that the upgrade of the TAP GFI farebox and garage computers requires the specialized knowledge that only Genfare possesses being the Original Equipment Manufacturer (OEM) and having already provided Metro and other TAP partner agencies with the equipment.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

DEOD SUMMARY – RECOMMENDATION C**AXIOM xCELL, INC.****TRANSIT ACCESS PASS (TAP) MOBILE PHONE VALIDATOR / PS30203139****A. Small Business Participation**

Effective June 2, 2014, per Metro’s Board-approved policy, competitive acquisitions with three or more Small Business Enterprise (SBE) certified firms within the specified North American Industry Classification System (NAICS) as identified for the project scope shall constitute a Small Business Set-Aside procurement. Accordingly, the Contract Administrator advanced the solicitation, including posting the solicitation on Metro’s website, advertising, and notifying certified small businesses as identified by NAICS code(s) that this solicitation was open to **SBE Certified Small Businesses Only**.

Axiom xCell, Inc., an SBE Prime, is performing 100% of the work with its own workforce.

SMALL BUSINESS SET-ASIDE

	SBE Prime Contractor	SBE % Committed	SBE % Participation
1.	Axiom xCell, Inc. (Prime)	100%	100%
	Total	100%	100%

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this contract.

DEOD SUMMARY – RECOMMENDATION D
CUBIC TRANSPORTATION SYSTEMS, INC.
TAP SYSTEM SUPPORT SERVICES / OP02461010

A. Small Business Participation

Cubic Transportation Systems, Inc. has a Disadvantaged Business Enterprise participation commitment of 5.65%. The project is 91% complete. Cubic Transportation is exceeding its DBE commitment with a current participation of 8.46%.

Small Business Commitment	DBE 5.65%	Small Business Participation	DBE 8.46%
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	DBE/SBE Subcontractors	Ethnicity	% Committed	Current Participation¹
1.	American Alloy Fabrication	Caucasian Female	0.25%	0.36%
2.	Lows Enterprises	African American	0.13%	0.04%
3.	TechProse	Caucasian Female	0.41%	0.07%
4.	Robnett Electrical	African American	2.53%	7.52%
5.	Priority Manufacturing (GFI)	Caucasian Female	0.93%	0.05%
6.	J-Tec Metal Products	Hispanic American	0.13%	0.04%
7.	KLI, Inc.	Asian Pacific American	0.25%	0.10%
8.	Kormex Metal Craft	Asian Pacific American	1.02%	0.28%
	Total		5.65%	8.46%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing Wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

Attachment D – Old and New Farebox Lids

OLD farebox lid

- Poor contrast on small screen
- Difficult for customers to read
- Cracked and irreparable

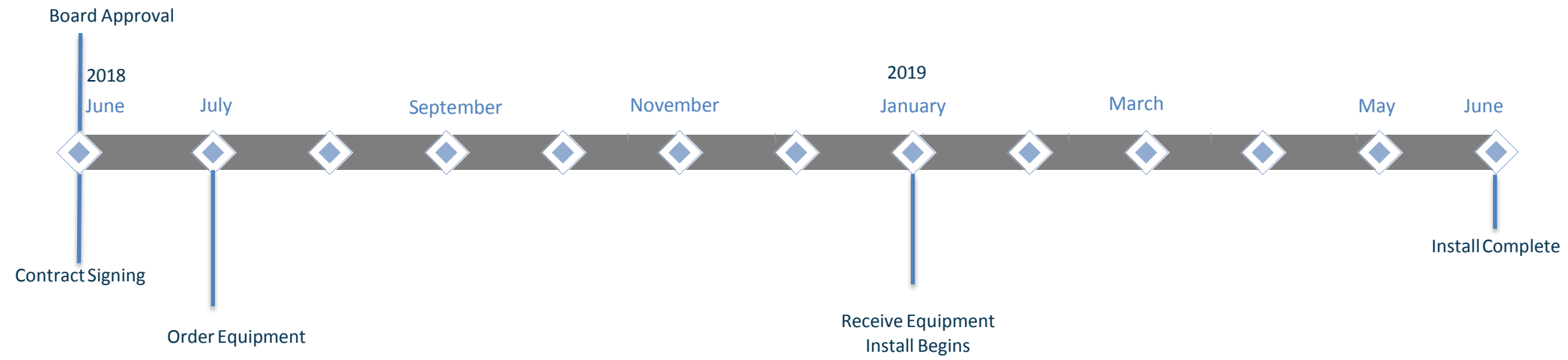


NEW farebox lid

- Improved visual display
- Easy to read
- Enhances customer experience



Systemwide Bus Farebox Upgrades and New Station Validators



Bus Fareboxes		
Agency	Quantity	
	Installs	Spares
Metro	2,588	375
AVTA	75	10
Culver CityBus	60	20
Foothill Transit	372	24
Gardena (GTrans)	59	12
Montebello Bus Lines	71	14
Norwalk Transit	41	12
Santa Clarita Transit	82	25
Torrance Transit	68	7
LADOT		
Total	3,416	499

Bus Driver Control Unit/ Light Validator		
(Non-Metro)	Quantity	
Agency	Installs	Spares
Metro		
AVTA		
Culver CityBus		
Foothill Transit		
Gardena (GTrans)		
Montebello Bus Lines		
Norwalk Transit		
Santa Clarita Transit	34	4
Torrance Transit		
LADOT	317	30
Total	351	34

Bus Garage Computers		
Agency	Quantity	
	Installs	Spares
Metro	17	3
AVTA	1	
Culver CityBus	1	
Foothill Transit	4	
Gardena (GTrans)	1	
Montebello Bus Lines	1	
Norwalk Transit	1	
Santa Clarita Transit	1	
Torrance Transit	1	
LADOT		
Total	28	3

Rail Stand Alone Validators		
Rail Line (Metro only)	Quantity	
	SAVs	Spares
Red	20	2
Green	3	1
Blue	63	7
Gold + Foothill ext	106	11
Orange	53	6
Expo I	65	7
Expo II		
Gold Line Extension		
Crenshaw/LAX		
Regional Connector		
West Side Extension		
CSUN (Bus only)	2	1
4th Floor Test Lab	2	1
Total	314	36

Bus Portable Data Probes		
Rail Line (Metro only)	Quantity	
	PDP's	Spares
Red	3	2
Total	3	2