

**Board Report**

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**File #:** 2017-0272, **File Type:** Contract**Agenda Number:** 32

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**FINANCE, BUDGET AND AUDIT COMMITTEE****MAY 17, 2017****EXECUTIVE MANAGEMENT COMMITTEE****MAY 18, 2017**

**SUBJECT: DEVELOPMENT OF NEXTLINK SOFTWARE FOR INTEGRATION OF THE SALESFORCE ACCOUNT-BASED SYSTEM WITH THE TAP SMART-CARD SYSTEM TO IMPLEMENT TAP MOBILE PAYMENT APP, BIKE SHARE, FARE SUBSIDY PROGRAMS AND RETAIL SALES TABLET SOFTWARE**

**ACTION: NEGOTIATE AND EXECUTE PERFORMANCE-BASED CONTRACT MODIFICATION**

**RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to negotiate and execute a performance-based Contract Modification to **Cubic Transportation Systems Inc. Contract No. OP02461010** to extend the base contract through **December 2024** for no upfront cost of development for Nextlink, a cloud-based connection system that will link the legacy TAP system to programs and services such as the TAP mobile payment app, Bike Share, fare subsidy programs, parking, ride-hailing services and more, in exchange for sales transaction fees of 0.5-3.0%, based on use of mobile app and retail fare sales for five (5) years of operation after development.

**ISSUE**

Metro currently lacks an open payment system which limits the ability to provide a more seamless experience for TAP customers, including enabling such features as a mobile app. Metro is currently building an open, hybrid, cloud-based payment system with Salesforce that will enable connectivity with various programs. In order to accomplish full integration, this cloud-based system needs to link with the Cubic smart card TAP system. Nextlink will provide this connectivity and link with Bike Share in Summer 2017. The mobile payment app will begin phased implementation in Fall 2017, fare subsidy programs in Winter 2017, parking, ride-hailing services and electric vehicle car sharing in Spring 2018.

**DISCUSSION**

Metro has been rapidly working to diversify and move toward a fare payment system that has a more open architecture and that is less proprietary. In December 2016, the Board approved a cloud-based

Salesforce Customer Service and Information platform, developed by Vertiba, which can be integrated with the current TAP system. The proposed contract modification for Nextlink will provide the ability to link new, open, account-based programs with the legacy TAP system. This will enable competitive bidding for fare collection and validation hardware such as fare boxes and TAP vending machines and foster seamless future program integration. To integrate TAP payment with separate and unique systems, the current Salesforce system is being modified to include various new applications and functions. Plans include integration with retail fare sales software, Bike Share, fare subsidy programs, gift card programs, parking, ride-hailing services, electric vehicle car sharing, a mobile app and more (see diagram in Attachment A).

### Open Source Procurements

The development of the Nextlink system will enable hardware such as retail fare sales tablets, TAP vending machines, bus mobile validators and other hardware to be open-sourced procurements that can securely link to the legacy TAP system.

### Customer Service Enhancements

#### *Payment Options for the Unbanked and More*

The new Nextlink system not only provides open architecture, but it also allows the unbanked to participate in TAP-enabled programs. Customers will be able to link their TAP payment accounts to credit and debit cards, internet services like PayPal and mobile wallets (Google Pay and Apple Pay), as well as load cash at convenience stores and TAP vending machines.

Qualified fare subsidy customers will no longer have to carry paper coupons because their TAP card will store the necessary subsidy information. Elimination of coupons will also eliminate the need for costly printing, distribution and inventory.

Customizable rewards and discounts can be configured across and within programs (e.g., a customer that rides a bike three times might get to choose a ride on some other transit service as a reward). Behaviors can be incentivized; for example, on bad air days, discounts could be quickly configured and implemented to incentivize riding transit and help reduce cars on the freeways.

#### *Mobile Application Features*

This negotiated contract modification will include the ability to tap and load your TAP card within an app on select smart phones and tablets. As early as 7-9 months from the start of development, the mobile app will be deployed. Planned future phases include the ability for phones to be used as virtual TAP cards to open gates and interact with other fare payment devices. The mobile app will also include bar code technology and other visual ticketing capabilities that will support the Olympics and other major sports and entertainment events beginning as early as Winter 2017. Other features

include trip planning, rewards and discounts, a TAP vendor locator, notifications and alerts. Plans call for the app to feature all 24 TAP partner agencies' fares to ensure regional connectivity.

No Upfront Cost, Transaction Based

The mobile app and retail fare sales software will be developed with no-upfront cost. The contractor will only derive revenue from fees of from 0.5% to 3.0% of TAP sales transactions. This model ensures that the contractor will have a strong incentive to create and operate a highly successful and popular app, since the contractor only profits if customers are actually using it and buying fares.

Planned Services Implementation Schedule

Planned services include phased development as outlined in TABLE 1.

TABLE 1  
Phase 1 Integration

Project	Description	Planned Launch Date	Progress
<b>Bike Share</b>	Payment integration with TAP account.	Summer 2017	Strategy sessions with integrator complete. Project plan and roadmap in development.
<b>Mobile App Iteration 1</b>	Buy/reload TAP cards, search for vendors, apply for reduced fares and ability for flash pass and bar code technology.	7-9 months from beginning of development	In planning stages.
<b>Fare Subsidy Programs</b> (Immediate Needs and Rider Relief Programs)	Remove paper coupons as part of the new consolidated Low Income Subsidy Programs. Discounts applied on TAP.	December 2017	Architecture and design underway.

Phase 2 Integration efforts will be completed between January 2018 and December 2018. Planned efforts include the ability to tap a phone on a fare gate/farebox, integrate with account-based entities such as ride-hailing services, retail gift cards, parking services, mobility hubs, and electric vehicle car sharing.

**DETERMINATION OF SAFETY IMPACT**

Implementing the enhanced TAP System will not have any adverse safety impacts on Metro patrons or employees.

**FINANCIAL IMPACT**

There are no upfront costs for development of the Nextlink system, the mobile application and the retail fare sales software. The apps are built on a transaction fee-based model. Transaction fees will be charged of 0.5-3.0% of mobile fare sales on the TAP app and 0.75% of in-store sales on the retail vendor app. These fees are in line with industry standards and are less in comparison with our cash collection fees of 6.5% on TAP vending machines and fareboxes. There is a tiered model for mobile fees that enables a lower fee percentage as sales increase. The tiered model is detailed in TABLE 2.

TABLE 2  
Yearly Sales and Tiered Fee Percentages

Tiers		
\$0	\$25,000,000	3.00%
\$25,000,001	\$50,000,000	2.50%
\$50,000,001	\$100,000,000	2.00%
>=\$100,000,001		0.50%

Impact to Budget

There is no impact to Budget. The payment is based on transaction fees and will be deducted from fare sales on the mobile app and retail vendor tablets. Appropriate monthly payments will be paid back to Cubic Transportation Systems, Inc. after sales from mobile and retail fare sales from vendors are generated. If new ridership is generated as a result of the convenience of the mobile app, a revenue increase will occur. If cash riders switch to the mobile app, a savings could occur in future years, based on a reduction in farebox and TAP vending machine cash counting operations.

Responding to Technology

If technology changes, Cubic will adapt with updated software in adherence with trends. For example, if Apple decides to provide access to their iPhones for fare payment, the vendor will make the necessary changes to the mobile app at no additional cost to Metro. As a standard with any Metro procurement, the contract will include options to end the work, such as for non-performance or an opt-out for convenience on a declining scale of cost. The modification is performance-based and not prescriptive: the contractor is incentivized to make the technology changes necessary to remain state-of-the-art.

Due to the high level of customized development of Cubic’s proprietary system, and to keep costs as low as possible, staff recommends Cubic Transportation Systems, Inc. to perform this work.

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## **ALTERNATIVES CONSIDERED**

The Board may choose not to approve recommendation of Cubic for no-upfront-cost and transaction-fee based implementation of Nextlink, mobile and retail fare sales software development. This choice is not recommended due to the urgent need for integration with new technologies and systems. If not approved, the TAP card-based fare collection system will not be able to integrate with new account-based systems such as Bike Share, parking, gift card programs, ride-hailing companies, mobility hubs, electric vehicle car-sharing, low-income subsidy programs and others.

The Board may direct staff to competitively bid this effort, but this is not recommended, as it will result in delays of up to two years and additional costs. In this scenario, the selected contractor would ultimately have to integrate with the Cubic proprietary back end, which is estimated to cost up to \$1-2 million plus additional transaction fees. Metro would have to run two systems which would result in duplication of efforts and of patron data and create customer service issues.

The Board may direct the procurement of an entirely new fare collection system, but this is not recommended based on experiences in other large regions. For example, Chicago has spent hundreds of millions of dollars on their new open payment system and New York has taken over 5 years for procurement alone for their new system.

The Board may direct staff to competitively bid only the mobile and retail sales software as standalone products. A Metro 2015 RFP for a mobile app resulted in a Cubic recommendation because they offered the lowest bid of the finalists. However, the procurement was stopped because of rapid changes in technology and the need to connect with many programs and services. Since then, staff has continued to negotiate with Cubic for better terms and to include proprietary Nextlink and the retail fare sales software.

### **Justification of Non-Competitive Contract**

To accommodate full integration of outside programs with the current fare payment system, reading and writing to customers' TAP cards is necessary. Cubic Transportation Systems, Inc. is the architect of our TAP infrastructure. This complex system holds TAP rider information for 26 TAP-enabled agencies. If Metro were to choose another vendor to do a mobile app, there would still be substantial charges for integration into the existing and complex back end. Building completely new fare payment infrastructure independent of Cubic is likely to take several years, further delaying the incorporation of critical new technologies.

Development of the mobile app, retail pass sales software and the new Nextlink system will not require future change notices or upfront costs to the contractor for outside program or hardware connection. This will enable Metro to compete future outside hardware purchases that were formerly

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proprietary, such as TAP vending machines, fareboxes, bus mobile validators, retail fare sales devices and more.

### **NEXT STEPS**

Upon Board approval, staff will negotiate and execute the contract modification with Cubic Transportation Systems, Inc. for Nextlink and TAP will begin work in May 2017.

### **ATTACHMENTS**

Attachment A - Regional Account Integration Architecture

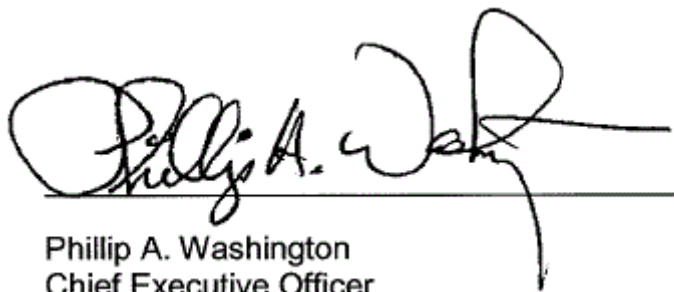
Attachment B - Procurement Summary

Attachment C - Contract Modification/Change Order Log

Attachment D - DEOD Summary

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