Metro

Board Report

File #: 2023-0617, **File Type:** Contract

Agenda Number:

<u>REVISED</u>
FINANCE, BUDGET AND AUDIT COMMITTEE
MAY 15, 2024
OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE
MAY 16, 2024

SUBJECT: TAP PLUS

ACTION: APPROVE RECOMMENDATIONS

<u>RECOMMENDATION</u>

AUTHORIZE the Chief Executive Officer to:

A. EXECUTE Modification No. 176 to Contract No. OP02461010001, with Cubic Transportation Systems, Inc. ("Cubic"), in the amount of $66,423,946 for upgrading the current fare payment system to include open payment and account-based functionality and expand its capabilities to improve the customer experience, including acceptance of credit and debit cards as payment on buses and at rail stations for 27 Los Angeles County transit agencies;

B. EXECUTE Modification No. 155.02 to Contract No. OP02461010MAINT000, with Cubic Transportation Systems, Inc. ("Cubic"), in the amount of $78,883,737 to support the current fare collection system, as well as the upgrade, and to extend the period of performance for an additional four years from January 1, 2025 to December 31, 2028; and,

C. NEGOTIATE and execute all agreements, contract awards, including contract modifications, not to exceed $6.5 million for software development and/or integration to implement open payment and account-based functionality.

D. AMEND the FY25 Budget by $33,000,000 to accommodate for the cash flow requirements of FY25 for the first-year implementation of the TAP Plus project.

<u>ISSUE</u>

The current TAP fare payment system requires an upgrade to expand its capabilities to meet the features available at transit systems around the country and the world v. Proposed improvements include acceptance of credit and debit cards as payment on buses and at rail stations, as well as a new account-based system that makes it easier for current and new customers to sign up for and use the TAP system and make it easier for riders to access reduced and free fares (e.g., GoPass and the

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LIFE program).

BACKGROUND

Los Angeles County's regional TAP system is one of the largest smartcard transit fare collection systems in the world, serving the region's customers each year. The TAP system makes it easy for customers to travel seamlessly across the county's municipal transit operators, in addition to Access Services, Metrolink, Metro Bike Share, and Metro Micro, through a unified fare collection system.

The current TAP system is flexible and enables many features for Metro, the 27 transit operators, and customers, such as:

- Management of a complex regional fare table, with over 700 fare products
- Facilitation of interagency transfers
- Implementation of reduced fares, discounted pass products and fare capping on Metro
- Offer free fares for LIFE and GoPass
- Availability of mobile payment options including a mobile app and Apple Wallet
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TAP fare products (tap cards) can be purchased at over 1,500 locations throughout Los Angeles County including Los Angeles County Libraries, online at *taptogo.net*, and 545 TAP Vending Machines (TVM) in operation at 143 locations, and aboard buses. TAP is accepted or considered valid fare media on 27 agencies across LA County, listed below:

1. Angels Flight
2. Antelope Valley Transit Authority
3. Baldwin Park Transit
4. BurbankBus
5. Carson Circuit Transit System
6. City of Monterey Park Spirit Bus
7. Compton Renaissance Transit Systems
8. Culver CityBus
9. Foothill Transit
10. Glendale Beeline
11. Glendora Transit
12. City of Gardena, GTrans
13. Huntington Park Transit
14. LA County Department of Public Works
15. LADOT Transit
16. Lawndale Beat
17. LAX FlyAway (LAWA)
18. Long Beach Transit
19. Metro
20. Montebello Bus Lines
21. Norwalk Transit System

22. Palos Verdes Peninsula Transit Authority
23. Pasadena Transit
24. Redondo Beach Cities Transit
25. Santa Clarita Transit
26. Santa Monica Big Blue Bus
27. Torrance Transit

However, the system needs to be upgraded to meet and exceed customer expectations.

For example, many transit systems already accept credit and debit card payment when boarding, reducing a barrier to trial for new or infrequent riders, as well as visitors from other parts of the country or the world. The addition of open payments would address this issue.

LIFE customers who prefer not to use the mobile app, website, or retail locations now must call the TAP Call Center each month to access their 20 free rides. The GoPass program also requires customers to input a code to load a pass and pick it up at the reader before they can use it. The addition of an account-based system would address these issues that make benefits less accessible to our most vulnerable customers.

TAP must upgrade its capabilities to improve accessibility to the correct fare payment plans, so customer expectations are satisfied and ensure broad access to free and reduced fares.

DISCUSSION

TAP Plus Software Enhancements and New Equipment

Metro's payment technology is trailing behind when compared to those of leading agencies across the world. Improvements such as contactless open payment and account-based systems, cater to both the needs of local customers and those of visitors and residents who will be attending, working, or participating in the World Cup, Super Bowl, Olympic and Paralympic Games - as well as mega sporting and entertainment events that occur every day in Los Angeles. To meet customers' expectations and make it easier to attract new riders, Metro must offer the features that are commonplace today, which requires the purchase of new equipment such as new bus validators and gate readers.

Open Payment

Open payment will allow customers and visitors to use the same contactless credit/debit card or mobile wallet they use for everyday purchases to tap and ride on Metro and all the other TAP participating transit agencies. By simply tapping a bank card or mobile wallet on the TAP reader, fare payment transactions will be generated and secured via upgraded readers and system software in conformance with Europay, MasterCard, Visa (EMV), and Payment Card Industry (PCI) standards governing contactless open payment transactions.

Account-Based System

An account-based system is a hub where customers' fare products, transaction history, and rider class are stored and managed securely in a cloud-hosted back office. The new architecture will simplify payment not only for transit, but for other mobility services such as bike share, parking, multiple microtransit services, and others.

An account-based system allows customers the flexibility to load and use their fare products in real time. This change expands the range of payment options that customers may add to their accounts, including contactless smart (TAP) cards, encrypted barcodes, contactless credit and debit cards, PayPal, and PayNearMe.

An account-based system is required to support the following:
- Open payment and the use of credit/debit cards for Reduced Fares (Seniors, Persons with Disabilities, Students)
- Real-time delivery of discounted fare products for LIFE & GoPass
- Ability for customers to set automatic reloads of Stored Value or other transit passes
- Payment for third-party mobility partners, such as Bike Share, Metro Micro, and scooters
- Event ticketing integration

The TAP system currently receives about 25,000 online fare purchase requests a day. Metro's current system capacity is about 27,000 per day and often this is exceeded. This requires constant monitoring to ensure customers get the passes they order. With the proposed account-based system, Metro will be able to store an infinite number of pass orders.

Integrated Ticketing for Major Sports and Entertainment Events and Metrolink

With the FIFA World Cup 2026, Super Bowl 2027, and the Olympics 2028 on the horizon, Los Angeles is set to be in the global spotlight. These events are not just opportunities to showcase the region's vibrant culture and spirit but also pivotal moments for LA Metro to redefine urban mobility. Recognizing this, it is imperative to ensure connectivity with major event venues and the TAP system, ensuring a seamless experience for attendees traveling to and from major event venues.

Integrated event ticketing will be a powerful incentive for customers to shift from driving to taking transit to events. Transit fare options will be included in the event ticket purchase process, and customers will be guided to choose transit as their preferred mode of travel.

In preparation for these major events, Metro is already taking proactive steps through a U.S. Department of Transportation SMART Grant pilot by working with the LA Philharmonic's (LA Phil) Hollywood Bowl Summer Music Program to test integrated ticketing. Hollywood Bowl customers will have an option to purchase a GoMetro Round-Trip Pass QR code in the LA Phil app or on the website.

Barcode scanning is currently available only on Metro Rail on the B/C Line in partnership with Metrolink and its barcode vendor. To ensure regional event ticketing integration, TAP Plus includes the purchase of enhanced validators equipped with barcode scanners for rail stations. Validators for

buses have already been purchased and installation is in progress, with a completion date by early 2025.

Benefits to Customers

TAP Plus comes with numerous enhancements to the customer experience.

- Customers will be able to pay fares with contactless credit and debit cards (including mobile wallet) directly on the bus and at rail stations throughout LA County. Customers using contactless credit/debit cards or mobile wallets will also automatically benefit from Metro's fare capping program without having to purchase a TAP card or load one on their mobile wallet.
- Customers will be able to manage their own accounts to instantly reload fares, transfer funds from one card to another, or easily add eligible special discounts or free fares, without having to visit a Metro Customer Center or TAP machine, or call the Metro call center.
- Customers attending special events will benefit from an integrated ticket solution providing convenient transit options, making their journey hassle-free and more efficient.
- LIFE and GoPass customers will have quicker access to free and discounted fares with account-based processing.
- TAP will recognize Electronic Benefits Transfer (EBT) at TAP Vending Machines, which will enable qualified customers to purchase free and discounted fares faster.
- TAP Plus would facilitate the potential merger of Metro's customer-facing mobile applications, as it enables customers to pay for various services using the same fare payment.
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New Equipment

The Board recently approved the purchase of new state-of-the-art Bus Mobile Validator (BMV) devices for Metro and TAP participating transit operators, including Metro Micro, municipal transit stores, and for special events. These devices are currently being installed on Metro and installation on municipal buses will be completed by early 2025.

The TAP Plus project includes the next generation of TAP card readers and new station validators. All fare equipment will accept TAP, barcode and credit/debit card payment. Below are brief descriptions of each equipment type (quantities include spares, devices for TAP lab testing, etc.).

- **Validator**: 4,520 new BMVs equipped with QR code scanners, larger display, and enhanced audible alerts
- **Station Validator**: 328 validators will replace current validators with QR code scanners, ADA compliant Braille, along with a larger, enhanced display and audible alerts
- **Gate**: 603 existing Metro Rail gates will be modernized with QR code scanners
- **TAP Vending Machine (TVM)**: 684 TVMs, including TVMs in operations, TAP Lab, spares, and in storage in support of new Rail projects, will be upgraded with a new ADA pin pad and DIP reader (Document Insertion Processor)

Retail Point-of-Sale Device and the Fare Inspection Device

To reduce costs, the Retail Point-of-Sale (RPOS) device and the fare inspection device are not included in TAP Plus. TAP will work with System Security and Law Enforcement (SSLE) for the development of the fare inspection application and purchase of off-the-shelf devices through a competitive procurement process.

Cloud-Hosted Back Office

In addition to upgrading customer-facing fare collection equipment, TAP Plus will deliver a scalable, cloud-hosted back office that will integrate with mobility partners such as Bike Share, Metro Micro and other services. This means customers can conveniently use the same payment method across various transportation options.

Benefits to 27 TAP Partner Agencies

TAP Plus enhancements will benefit TAP partner agencies by upgrading their onboard BMVs to accept existing TAP cards, interagency transfers on TAP, open payment cards, account-based cards, regional fare capping and barcode ticketing at no additional cost.

Implementation Schedule

In Phase 1 of the upgrade, the contractor will launch open payment in early 2026 in time for the World Cup Games. Phase 2 will include the launch of the account-based system by the Fall of 2026, well before the Super Bowl and Olympic Games (Attachment A). This timing will allow Metro to stress test systems during significant sporting events so we can be sure they are ready to support the millions of customers we will see during the Olympic and Paralympic Games.

Guarantees and Warrantees

Maintaining the schedule is crucial to ensure key features are delivered in time for the World Cup in 2026. The agreement specifies penalties for failing to meet important milestone dates, $10,000 per day for each day key milestone dates are missed. These penalties will recur daily until a maximum of $700,000 is reached.

New hardware purchased under the terms of the agreement will include a one-year warranty. After the one-year warranty expires, the hardware will be added to the support services agreement for continuous coverage.

Extending the TAP System Support Services Agreement and Cost Analysis

The current TAP System Support Services Agreement was approved in 2019 for a period of five and a half (5.5) years and will expire on December 31, 2024. As part of this report, staff recommends extending the agreement for an additional four (4) years to ensure continuity of service for the World Cup in 2026, the Superbowl in 2027 and the Olympics in 2028.

Metro currently spends about $16.8 million per year on maintenance of the TAP system, across the 27 TAP partner agencies. In comparison, the new four-year agreement will include support of all current and proposed hardware and software for about $19.7 million per year. This represents an annual increase of $2.9 million to cover enhancements and moving current tasks from Metro to the contractor, outlined below.

Support Services Agreement	($ in millions)
Adding Open payment & account-based Back Office	$ 1.14
Transition data storage from Metro servers to cloud-hosting	$ 1.16
Shift responsibility from Metro to contractor for complying to Payment Card Industry, or PCI, standards	$ 0.10
Move the TAP mobile app's fee-based service to a flat rate	$ 0.50
Total	**$ 2.90**

The enhancements and transitioning of services amount to $11.5 million over four years from the previous Support Services Agreement.

Service Level Agreements

Service Level Agreements (SLAs), or Key Performance Indicators (KPIs), are built into the support service agreement with defined availability and performance levels to be achieved for each service such as 24/7 help desk, the TAP app, cloud-hosting service, fare inspection app, and deployed equipment and devices on bus and rail to ensure optimal performance during peak and non-peak hours. The SLAs are designed to incentivize the contractor to deliver excellent performance, while also imposing penalties for failing to meet the SLAs. The SLAs will be carried forward to the extended TAP System Support Services contract. When SLAs are not met, the contractor will be penalized with abatement fees.

Their current performance level has been at 97.96% over the past five years.

DETERMINATION OF SAFETY IMPACT

No adverse safety impacts are anticipated from upgrading the current fare collection system with enhancements and features from TAP Plus.

FINANCIAL IMPACT

TAP Plus

The cost for the TAP Plus upgrade is $66,423,946. This includes a full system upgrade and integration and moves the TAP's legacy card-based environment to an account-based, open payment-enabled solution.

Metro continues to work with credit card companies to provide funding to support TAP Plus and

negotiate favorable transaction rates to reduce costs.

Upon Board approval, funding for the TAP Plus project will be amended into the FY25 budget. Since this will be a multi-year effort, the Senior Executive Officer of TAP and Project Manager will be responsible for budgeting costs in future years, based on the annual cashflow needs.

TAP System Support Services

Separately, the cost for the TAP System Support Services Agreement will be $78,883,737 over four years for field services, security/PCI administration, licenses, and cloud-hosting services. Budget for the first year for support services is included in the proposed FY25 budget under cost center 5440, in the Revenue Collection Department for contracted maintenance services. Since this is a multi-year contract, the cost center manager and Senior Executive Officer of TAP will be responsible for budgeting funding needs in future years.

The funding source for the TAP Support Services Agreement will be Proposition C 40%. These funds are eligible for Metro, regional bus, rail operations and capital improvements.

Potential Long-Term Savings

As customers transition to open payment, there is a potential savings of $5 million to $10 million, representing a 10% to 20% reduction in the number of operational TVMs. The reduction of operational TVMs can be re-deployed to new rail lines to support rail expansion projects. Other savings may be realized through a decrease in the number of TAP cards procured, up to 29% of credit or debit card transactions at TVMs may potentially transition directly to open payment at fare gates or validators on Metro Rail.

EQUITY PLATFORM

TAP upgrades such as instant qualifications for low-income and reduced fare customers are designed to benefit low-income households, which make up the significant majority of Metro's ridership. With an account-based platform, eligible customers with an Electronic Benefit Transfer (EBT) Card or proper identification could potentially qualify instantly at rail stations for reduced fares, without having to wait for the processing time to enjoy reduced Metro fares.

Throughout 2022, TAP use increased by approximately 8% on Metro Bus and Rail. This increase may be attributed to increases in LIFE and GoPass registrations, facilitated by the simplified enrollment process on TAP. With the introduction of instant qualification through the proposed TAP upgrades, staff hopes to see a projected increase in TAP usage of at least 8-10% to at least match that of 2022.

Cash-paying customers or customers without internet access or smartphones will still be able to use the Metro system as they currently do today. The existing fare payment methods or amenities will remain unchanged with the TAP upgrades. Metro will continue to identify inclusive strategies to reach cash-paying customers to facilitate TAP benefits for these riders; for example, a Metro-issued transit debit card could be made available to increase their access.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of the recommendations are in accordance with the following goals:

1. Strategic Plan Goal #1: Provide high quality mobility options that enable people to spend less time traveling as part of an effort to manage transportation demand through fair and equitable pricing structures.

2. Strategic Plan Goal #2: Deliver outstanding trip experiences for all users of the transportation system by improving legibility, ease of use, and trip information on the transit system.

> 2.2: Metro is committed to improving legibility, ease of use, and trip information on the transit system.

ALTERNATIVES CONSIDERED

The Board could decide not to amend the Cubic contract and issue a new Request for Proposal (RFP) for an open payment and account-based system and to maintain TAP equipment. Staff does not recommend this, considering the complexity of the TAP system and the demands on software and equipment integration. Specifically,

- RFP and new software and equipment implementation would not be ready in time for the FIFA World Cup in 2026 or the Olympic Games in 2028, which are opportunities to stress test the new systems in advance of the Olympic and Paralympic Games.
- At a minimum, all transit agencies on TAP, including Metro, would have to replace the TAP bus mobile validator/readers. New BMVs were procured very recently. Secondly, the new vendor would have to integrate with each agency's Computer-Aided Dispatch and Automatic Vehicle Location, also known as CAD/AVL.
- A new vendor may require replacing all current equipment (could involve replacing gates, station validators, bus fareboxes, bus mobile validators and TVMs). This is cost-prohibitive ($750 million to $2 billion).
- A new vendor must take over maintenance and upgrades to current gates, validators, and bus fareboxes, requiring Cubic and the new vendor to work together to integrate the new vendor's software and readers with the current equipment. This will be extremely difficult to coordinate resulting in integration delays.

The cost of TAP Plus is reasonable because it not only upgrades Metro to meet the standards of other transit agencies across the country and the world but will also enhance the fare collection systems of 26 other agencies. This represents 4,400 buses, 101 Metro Rail stations, and over 12,000 Metro Bus stops. On average, the capital costs for each agency would be around $2.5 million, and the support services agreement would amount to approximately $0.84 million per year per agency. By comparison, Minneapolis' transit agency has a fleet size of 900 buses and two light rail lines and recently awarded a contract for $37 million. San Francisco awarded a contract for $394 million, Chicago for $320 million, and New York for $554 million. This upgrade would also support the agency's goals and work underway investigating the possibility of merging Metro's mobile applications to improve the customer experience.

Further, FTA Circular 4220.1.f allows Metro to make a change to a contract when justified. The Circular also allows Metro to issue a contract modification when patent or data rights restrictions preclude competition. The TAP software upgrade is developed and engineered by the current vendor, so it is proprietary and intellectual property. V/CM reviewed the scope of work and determined the recommendation is justified as a contract modification.

Staff considered two alternatives to TAP Plus.

1. Continue with the current TAP mobile/card-based system while adding open payment. The estimated cost would be about $46 million. This option would not include the account-based system that would be of particular benefit to our most vulnerable customers. This does not address the limit on the number of daily autoload requests, continues delays in loading LIFE and GoPass fares and does not offer reduced fares for credit and debit card use. At a minimum, integrated event ticketing could be done in partnership with Metrolink's barcode ticketing vendor and with some software programming from Metro's vendor for an additional cost. This alternative does not include cloud-hosting, so it necessitates the replacement of in-house servers at a cost of about $4 million.

2. Continue with the current TAP mobile/card-based system while launching a robust marketing campaign to encourage customers to transition to the TAP mobile app prior to the World Cup, Superbowl and Olympic Games. Customers could use their credit or debit cards to purchase fares using a virtual TAP card on their mobile phones (in use now). At a minimum, integrated event ticketing could be done in partnership with Metrolink's barcode ticketing vendor and with some software programming from Metro's vendor for an additional cost. However, this would not support the agency's goals and work underway investigating integrating Metro's various mobile applications to improve the customer experience.

NEXT STEPS

Upon approval by the Board, staff will execute the contracts and/or contract modifications to implement TAP Plus and to extend the TAP System Support Services for a period of four (4) years through December 31, 2028. Staff will provide periodic updates as to progress.

ATTACHMENTS

Attachment A - Tentative Timeline on Customer Benefits
Attachment B - Procurement Summary
Attachment C - Contract Modification/Change Order Log
Attachment D - DEOD Summary
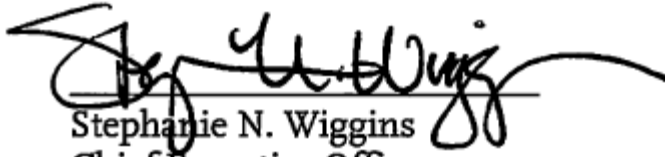Attachment E - Frequently Asked Questions

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