Information Item

Date: March 23, 2017

To: Mayor and City Council

From: Edward F. King, Director of Transit Services

Subject: Big Blue Bus Mobile Ticketing Pilot

Introduction

As part of Big Blue Bus' (BBB) commitment to improving wellbeing for all stakeholders in the 58-square mile service area through technology that continues to improve how services are delivered, BBB has partnered with Token Transit to launch a pilot mobile ticketing application that allows customers to purchase and activate BBB passes using smartphones.

Background

BBB has, over the past several years, worked to improve the process of fare collection to provide a better customer experience, improve the customer - Motor Coach Operator interface, improve travel speeds and trip times, and improve internal efficiencies. These efforts include partnering with L.A. Metro to include BBB passes in the regional TAP system in early 2015. In December 2015, BBB performed a rehabilitation of its Genfare fare collection system including installation of updated fareboxes on all buses, replacement of the cash vaulting system, and upgrade of the back office system. While these efforts have improved system reliability and reporting and have provided additional payment options for customers, a larger issue remains.

As of December 2016, 47 percent of BBB customers still pay fares by depositing cash into the farebox, as opposed to using prepaid forms of payment. A cash transaction, upon boarding the bus, at the farebox typically takes 23 seconds, whereas, using a prepaid

pass (magnetic or TAP) takes only 3 to 4 seconds. In order to improve trip time speeds, which continually rank high in priority in BBB customer feedback surveys, staff has implemented new solutions to reduce cash payments by providing other, more convenient options, including the provision of a mobile application fare payment alternative to complement the other fare media options currently available to BBB customers.

Discussion

According to a study performed by the Pew Research Center, 72% of people now carry a smartphone and use it not only for communication but for many other purposes. BBB's own recent customer surveys show even higher percentages of smartphone ownership and use among customers. In BBB's service area, according to a customer survey performed by an independent source, 78% of English-speaking customers and 76% of Spanish-speaking customers, report that they own a smartphone with a data plan. Given that smartphones are commonly used to pay for various commodities including shared mobility (e.g., to hail a ride or pay for a bike share bike), mobile ticketing for BBB was a logical choice to explore as a fare payment option.

A number of other transit properties of varying sizes, including large regional agencies such as Chicago (CTA), Portland (Tri-Met), and Seattle (King County Metro) have piloted and/or launched mobile ticketing apps with success. However, as launching a full-scale mobile ticketing solution for BBB could cost $500,000 or more and take months to procure and integrate with the existing fare collection system, BBB has decided to perform a short-term agile test of the mobile ticketing app with Token Transit.

Token Transit is a mobile application (app) used to pay for public transportation. Using the Token Transit app, customers can purchase transit passes on their smartphones and board the bus by showing the driver an activated pass on their phone. Token Transit is a rapidly deployable alternative to smartcards that helps boost ridership, decrease costs, and improve service. Founded in San Francisco with the mission to increase access to public transportation across the United States, the company is helping transit agencies of

all sizes provide an easy and more convenient customer experience.

Token Transit has recently successfully launched a similar pilot at Regional Transportation Commission (RTC) in Reno, Nevada, and is currently beta testing the application in Eureka, California. RTC is a medium-size transit property with annual fixed-route ridership of approximately 8 million on 26 bus routes. In the three months since RTC's December 2016 launch, Token Transit now makes up 5.4% of all pass ridership. Recently, RTC also made the decision to shut down its network of Transit Vending Machines (TVMs), which they found to be unreliable and expensive to maintain, and directed customers to Token Transit instead.

Token Transit is providing BBB with a license to pilot its proprietary mobile ticketing app which will allow BBB customers to buy BBB fare products using smartphones. This limited-term trial requires no integration with any existing BBB software or hardware. Conversely, a permanent full-scale mobile ticketing solution could include (but not be limited to) use of Apple and Google payment apps, direct credit or debit card payments via farebox, and/or producing tickets containing QR or barcodes that can be scanned by the fareboxes or other electronic validating devices. Many mobile ticketing apps are also integrated with trip planning apps; some appearing as options on trip planning apps such as Google maps and can be clicked through seamlessly for instant payment (just like Uber). For full deployment of an integrated fare collection system, these additional functionalities would all need to be integrated with BBB's existing fare collection system hardware and data systems as well as potentially the GTFS-realtime (General Transit Feed Specification) feed for location tracking and open data sharing.

Additionally, as partners in the regional fare collection system (TAP), a new generation of regional fare payment options that allow customers to seamlessly move across the region on more than one transit system is anticipated. However, given the enormous scope of a region-wide fare collection system, it is unlikely that a mobile ticketing component will be part of the regional system in the near future.

As described above, the mobile ticketing marketplace is ever-expanding and diverse in terms of cost, scope, and implementation time. BBB staff have been actively watching the fare collection marketplace, attending webinars, trade expositions, and conferences as well as engaging in peer surveys and site visits. Before embarking on a large-scale formal procurement and technology integration requiring considerable resources in terms of time, money, and staff, BBB would like to test this concept with its customers via this small-scale pilot.

Token Transit, a small start-up, can provide us with a mobile ticketing app to test on a trial pay-as-you-go basis with essentially no risk to BBB or the City should the app not succeed. This pilot is completely separate from any of our systems and requires very little training and an agile, simple implementation process that gets us to launch in 30 days from kick-off. The Token Transit app is the least expensive option to test, and one of two that requires no integration with our fare collection system.

Scope of Pilot

There are no up-front costs associated with this implementation. The pilot's contractual maximum is $50,000 in commissions paid to Token Transit during the pilot, which translates to approximately $500,000 in mobile pass sales revenue. The only cost associated with this contract is a commission rate of 10% of sales revenue. All payment processing is done using Stripe, a third-party payment processor. A daily remittance will be electronically transmitted to the City and monthly ridership reports will be provided to BBB.

Although the pilot could run for as long as one year, given BBB's current ridership and known fare collection behaviors, staff projects that the threshold will be reached in approximately six months from launch. At that point, customers would be informed that sales of new passes will end, and BBB would continue to honor purchased passes for an additional 120 days to allow customers the opportunity to use their tickets.

BBB will closely watch the adoption rate throughout the pilot and will initiate a full-scale procurement process for a permanent solution as soon as it becomes apparent that there is customer demand for this type of mobile ticketing. The pilot may be extended if needed to provide a seamless transition for customers.

Public Outreach

A modest public outreach campaign is being developed, which includes interior car cards on-board buses, take-one cards at the Transit Store, and Twitter and Facebook posts. Both print and electronic media will be published in late March, just ahead of the anticipated April 3rd public launch date.

Customer Experience

The customer interface is simple. Customers download the app from Google Play or the App Store, set up their accounts, and then purchase passes. All BBB passes are available, as well as single ride tickets. When ready to ride, customers activate the prepaid tickets shortly before boarding, which appear as colorful, animated tickets on their phones. The Motor Coach Operator visually validates the activated ticket, allowing the customer to board.
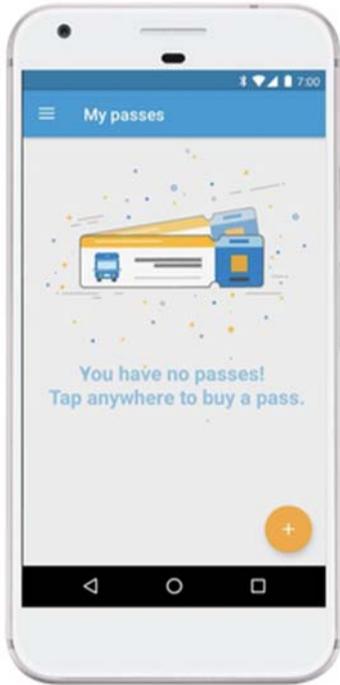
| Empty pass wallet | BBB pass available for activation | Activated ticket |

Expected Outcomes

BBB is using this short-term, low-risk, limited budget trial to test the concept of mobile ticketing with customers before embarking on a full-scale process for a more robust mobile ticketing solution. If customer demand for this type of ticketing is revealed in the trial, then BBB will issue a Request for Proposals. Metrics to evaluate the success of the program have been developed with Token Transit. These metrics will also include whether the pilot attracts new customers to BBB service. In alignment with the early success of the RTC pilot, it is projected that the limit of $500,000 in sales could be reached in six months.

Measures of Success

Both qualitative and quantitative performance metrics have been established to measure the success of the pilot. A successful pilot would meet the following objectives:

- Reducing the percentage of onboard cash fares by 3%;

- Receiving sales of $500,000 of fare products during the pilot period;

- Improving the MCO-customer interface through a seamless (cash-free) fare payment system;

- Speeding up the travel time on routes where BBB experiences high volumes of cash fare payment;

- Increasing ridership through retention of existing customers and attraction of new customers who might otherwise use their smartphones to procure a different mobility option such as car-sharing; and,

- Improving the customers' overall mobility experience as expressed through feedback.

<u>Next Steps</u>

Upon conclusion of the pilot program, a second information item will be published with observations, conclusions and further recommendations. Next steps are expected to include a recommendation to initiate a formal procurement process for a permanent mobile ticketing solution, or to evaluate other fare payment options that could include credit or debit card payment when boarding the bus.

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