Transit Smart Fare System Project

> **Recommendation:**
>
> That the June 7, 2017, City Operations report CR_4578, be received for information.

Report Summary

This report provides an update on how Administration is moving forward with the regional Smart Fare initiative.

Previous Council/Committee Action

At the March 7, 2017, City Council meeting, the following motion was passed:

> That Administration provide a report on the Transit Smart Fare System project including project status, schedule, and next steps.

Report

Background

The City of Edmonton, City of St. Albert, and Strathcona County have agreed to implement an integrated electronic fare payment system for the Edmonton Capital Region. The Regional Smart Fare System will:

- have the capability of providing transit passengers with greater convenience when traveling around the Capital Region
- be extensible to other municipalities/agencies in the region
- provide the ability to implement progressive fare policies
- deliver better information to plan services for customers

Electronic fare payment systems provide customers with different and more convenient options for paying their transit fare. Using cards or devices with near field communications capabilities (eg. credit or debit cards, smart phones or watches), passengers will have options to pay for single trips, to purchase multiple trips, or, through their accounts, to take advantage of programs and discounts offered by the participating transit agencies. Moreover, customers will be able to manage their accounts, register for fare programs, and reload value to their accounts through sales channels that include web-based interfaces, Smart Fare Vending Machines, a comprehensive retail network, and in-person service centres (for example, Edmonton's Integrated Front Counter).

In addition to streamlining fare payment and revenue assignment for cross-boundary trips, the Regional Smart Fare System provides additional benefits to transit operators, including:

- reducing bus operator involvement in fare disputes
- mitigating lost revenue from paper products
- offering flexible and scalable pricing to support a variety of fare policies and fare structures
- providing more detailed ridership information and fare-type preferences
- increasing ridership by making fare payment easier
- eliminating cash collection and, later, cash counting

Project Status/Schedule

Following an extensive requirements gathering and procurement process, Vix Technologies Inc. was selected as the preferred vendor to design, implement and operate the Regional Smart Fare System, and contract negotiations are presently underway. Upon successful completion of negotiations, the Notice to Proceed will be issued. During the following 6 to 12 months, the vendor's project team will work closely with the Capital Region partners to design the functionality of the system. This will be followed by equipment installation and pilot testing, with full rollout of the Regional Smart Fare System expected in early 2020.

During this time, the vendor will also develop the backend infrastructure and customer-facing features (eg. call centre, web applications, and retail network). The vendor will be responsible for maintaining all equipment (fare validators, Smart Fare Vending Machines, and fare enforcement equipment), operating a call centre that deals with fare payment inquiries and issues, operating the web applications that allow customers or agencies to manage their Smart Fare accounts, and providing a retail network for card purchases and reloads. The operations portion of the contract could be for up to 12 years.

With a project of this scope and change in technology, the participating agencies will also have to adopt and refine processes to support the electronic fare payment system. A significant change management exercise will be required, covering aspects like financial reporting, call centre coordination, fare enforcement, fare program administration (eg. U-Pass), coordination of information available to the public and transit users in the region, and transitioning of staff to undertake different functions needed to support the Regional Smart Fare System. Further, St. Albert and Strathcona County will need to adopt the Smart Bus System used by Edmonton Transit Service, which will require integration of scheduling data and mapping systems. Smart Fare will leverage the communication infrastructure and service data available on the buses to support operation of the electronic fare payment system. A program management plan is under development to plot the steps and resources required for successful implementation of the system.

The City of Edmonton, City of St Albert and Strathcona County entered into a Capital Funding Agreement in 2016 for the procurement, installation and initial implementation of the smart fare system. As the project progresses to implementation, the parties will

be negotiating an operating agreement that specifies responsibilities, cost and revenue allocations, and reconciliations and conditions to add other transit agencies onto the system. The target for finalizing this operating agreement is the end of 2017.

Communications

An extensive internal and external communications exercise is required to support the implementation of the electronic fare payment system. Initial steps include development of a "brand" for the regional fare payment system, with selection of the brand targeted for December 2017. From a public and customer perspective, the Regional Smart Fare System will result in significant changes in how customers acquire their transit fare products. With paper fare media being phased out in favour of modern electronic technology, Administration will need to educate customers on the fare product options available to them and show them how to use the new fare media on the transit systems. A comprehensive internal communications exercise is required to inform staff and garner buy-in to the changes and benefits afforded by an electronic fare payment system, as well as to provide information on how individual roles could change as the system is rolled out.

Next Steps

Moving forward, Administration will continue to closely monitor the technological advancements of electronic fare systems. The introduction of new technology in a multi-agency environment introduces significant project risks. This has been seen through the deployment of modern electronic fare systems in other cities. Throughout this project, the Smart Fare project team has developed an understanding of the industry and risks involved in electronic fare system deployment, and it has identified major project risks and mitigation strategies. The major project risks include:

- governance and decision making in a multi-agency environment
- poorly defined requirements
- implementation of new technology/systems and multiple integration points with existing
- proponent selection
- inadequate internal resources
- volume of change management
- project schedule
- project scope

Major project risks and mitigation strategies are documented in greater detail in Attachment 1. Despite the challenges faced in implementing a system of this nature, the proposed Regional Smart Fare System is needed to meet public expectations for greater transit fare payment options and to provide the flexibility to offer progressive fare policies.

Policy

The Way We Move, Edmonton's Transportation Master Plan:

- Strategic Action 4.1(b): Encouraging land uses that are compatible and complementary to the surrounding transportation network.
- Strategic Action 4.1(c): Designing the transportation network to ensure it is compatible and complementary to the surrounding land uses.
- Strategic Action 5.1(f): Pursuing opportunities, alone or in partnership with others, to provide and improve pedestrian and cycling connections between LRT stations/stop, transit centre and adjacent developments.

The Way We Live, Edmonton's People Plan:

Objective 1.3: The City of Edmonton integrates public transit with economic, social, residential and recreational hubs.

Budget/Financial Implications

In December 2014 following the approval of the 2015-2018 Capital Budget, $42,219,000 was the total approved budget for the regional Transit Smart Fare System (Profile 13-66-1294). This included the $7 million approved in the previous budget cycle. Project completion was contingent on GreenTRIP funding from the Province of Alberta to cover two-thirds of the overall project costs, which was subsequently provided by the Province in September 2015. Final project costs and ongoing operating costs will be reassessed following negotiations with the preferred vendor.

Metrics, Targets and Outcomes

Metrics	Targets	Outcomes
Customer Satisfaction with convenience of fare purchase	● Increase customer satisfaction ● Satisfaction with convenience of fare purchase - 81% satisfied in 2016 Q2.	Having an easy-to-use fare payment system will improve the overall experience for transit customers
Device and System Performance	Achieving service levels defined in the vendor contract (TBD)	System and equipment reliability

Attachment

1. Major Project Risks and Mitigation Strategies

Others Reviewing this Report

- T. Burge, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services
- C. Campbell, Deputy City Manager, Communications and Engagement