

ETS Smart Card (D. Iveson)

Recommendation:

That the September 29, 2009, Transportation Department report 2009TD6768 be received for information.

Report Summary

This Report provides a response to a Councillor inquiry on the status of the Edmonton Transit System (ETS) smart card.

Previous Council/Committee Action

At the August 25, 2009, Transportation and Public Works Committee meeting, Councillor D. Iveson made the following inquiry:

1. What is the status and what results can be reported from the ETS Blue pilot project with University of Alberta?
2. Has Administration updated the business case for smart card technology for ETS fare collection that emerged from the Auditor's recommendation to pursue smart cards to reduce fare evasion?
3. Is a dominant standard emerging in terms of the technology for these systems?
4. What are the potential benefits and challenges with implementing a smart card system?
5. What are the general timelines for implementation?
6. What mechanisms could be used to finance implementation if indeed the business case indicates that it would be financially advantageous over time?

Report

At the August 21, 2007, Transportation and Public Works Committee meeting, the LRT Phase One Smart Card Implementation was approved as an agreement with Cubic Transportation Systems for software and hardware upgrades to the existing LRT fare collection system to accept a Transit Smart Card, in the amount of up to \$600,000.

Smart card technology is the global industry standard for new fare collection system procurements. It supports secure electronic financial transactions and offers mutual benefits for consumers and transit providers.

1. Blue Smart Card

ETS recently completed a two-month LRT system test with 200 University of Alberta staff members to confirm customer benefits and functionality of a transit smart card. Surveys showed 99% used the card all the time on the LRT and 97% said it was very easy to use the first time. Over 25% indicated they increased transit use as a result of having a smart card. Eighty-six percent replaced one to nine car trips/week with transit and 14% replaced 10-19 car trips/week with transit because of the smart card. User satisfaction was high at 91% and 97% said it was important that the card be expanded across the transit system. Sixty-four percent indicated it was important that it be used to access Park and Ride. The most frequent email comment was, "When is this available to use on the bus?"

2. Updated ETS Smart Card Business Case

In response to the Auditor's report, ETS staff indicated that smart cards reduced

security risks currently associated with unused fare products and fare evasion. While no major adjustment to earlier business cases was developed, staff confirmed that benefits exist through the use of smart cards. However, specific business cases were not being created until other aspects of the overall program could be determined. For example, was the system only to be used in the City or to be included in a Capital Region transit system or was the smart card to be part of a wider use for one-card service affecting other City services and agencies?

3. Dominant Standard

The use of contactless smart cards has been adopted by transit providers, government agencies and major credit card companies.

4. Benefits and Challenges

A key benefit of smart cards is the improved operational efficiency due to simplified fare product and financial distribution channels. Agencies report better revenues due to re-designed fare strategies, value-added service features and convenience. Other benefits include:

- Better able to forecast service and market adjustments with real time travel and usage data
- Improve use of all transit modes due to easier transfers
- Deliver immediate benefits and changes to fares, etc. to users
- Provide access to other municipal services
- Accept other smart cards from banks, etc.

Most riders already use credit cards for other business so the basic handling

and use is not a major concern. The main challenge is getting customers to know the various fare options and related access benefits.

5. Implementation Timeline

A full system deployment within ETS, while assuming the current rate of growth of the system, requires up to four years.

6. Mechanisms to Finance Implementation

While financial support for the implementation of smart cards would require primary funding from the operating budget and the current capital budget sources – grants, general financing, etc., there would be an opportunity to offset some of these costs. Benefits to the operating budget include:

- reduce financial losses due to fare evasion
- sell advertisement on the card (logos, etc.)
- reduce costs associated with printing fare media and distribution
- enable immediate changes to create a more efficient transit service based on real time commuter travel history
- reduce some of the support needed for other fare systems (ie cash, tickets, etc.).

Capital budget opportunities include:

- participation by the Capital Region Board for cross-boundary transit services
- implementation to coincide with the normal life-cycle replacement of existing equipment.

Conclusion

Smart card technology is not new. However, the new banking/accounting methods and sub-system products continue to change. At the time when ETS is directed to move on the project, a better overview can be provided to show what the latest products would be in the four-year implementation program. While ETS is ready and capable of applying this technology, the most significant issues are the funding and range of use. A smart card fare system is one of the top priorities under the Capital Region transit network plan.

Focus Areas

Implementing smart cards supports the City's Transportation Master Plan and the strategic plan - The Way Ahead - under the following goals:

- Shift Edmonton's Transportation Mode
- Improve Edmonton's Liveability
- Ensure Edmonton's Financial Stability

Budget/Financial Implications

The capital cost is approximately \$24 million based on a four-year implementation and is currently unfunded.

Others Approving this Report

- C. Warnock, Chief Financial Officer and Treasurer

Others Reviewing this Report

- D. H. Edey, General Manager, Corporate Services Department