Authors: Cynthia Weatherby Gilliland, Darryl D. Puckett, Katherine F. Turnbull

"Smart Card" Meets Social Service and Transit Needs

PROJECT SUMMARY REPORT

Public transit passengers have paid fares with cash since the introduction of horse-drawn trolleys in the 1820s. Advancements in fare payment methods over the years have included tokens; multi-ride tickets; and daily, weekly, and monthly passes, making transit use easier and more convenient for the passengers and operators alike. Today transit agencies are beginning to take advantage of advancements in telecommunications, electronics, and computer technologies to collect fares using "smart cards." Looking much like the traditional credit card or debit card, smart cards can use a variety of technologies – magnetic stripe (like most credit cards), embedded computer chip, or a combination of the two.

While public transit systems may **collect fares** using the smart card technology, human service agencies are using smart card technologies to **provide benefits** to eligible individuals. In 1994, the Texas Department of Human Services (DHS) implemented the Lone Star Card (LSC) for disbursing food stamp benefits and to cover other eligible expenses under the Temporary Assistance for Needy Families (TANF) program.

A variety of federal and state human service programs provide benefits to clients to cover their transportation costs. It is desirable for Texas human service agencies to have the capability for providing as many benefits to clients as possible through smart card technologies – including transportation. State legislation encourages the continued inclusion of additional benefits in the LSC program. An integrated

smart card technology – used by both human service agencies to provide benefits and accepted by public transit service providers to pay for services – would simplify the existing burdensome administrative processes for both the agencies and the transit systems.

What We Did. . .

During the first phase of the project, researchers examined the various types of smart card technologies, programs being implemented, and the potential issues associated with implementing and operating transit smart cards. Use of the LSC was explored, as well as the possible integration with transit smart card applications.

As the major research objective during the second phase, researchers conducted a pilot test with the Temple Workforce Center and Temple Transit. Because of the inability to interface directly with the LSC vendor, Transactive Corporation, during the pilot test, researchers developed a surrogate for the project using an existing barcoded identification card.

What We Found. . .

In the pilot test, researchers found positive support from the transit system and the social service agency to cooperate in the exchange of benefits for transportation services. There is also broad-based interest among state human service agencies and policy makers to expand the LSC program to include services other than TANF. However, the status of the arrangements for providing LSC services is a stumbling block. During the second phase of the project, the private firm that provided administration for the LSC program since its initiation announced its intentions to no

Lone Star Card

longer provide those services. At that point, no additional "accounts" within the LSC program were created, thereby preventing creation of a "transportation account" for the purposes of the pilot test or any other application. The Year 2000 problem also took the time

and attention of the program provider.

The State of Texas is restructuring the LSC program. During 2000, some program services will be provided with state employees and others through contractual arrangements. Once the new program structure is in place, there are a number of human service agency programs in line to execute pilot programs. No new pilot program is anticipated before 2001.

Until the new LSC program structure is in place there is not an opportunity to implement an integrated use of smart cards by public transit providers and human service agencies. However, researchers found that several of the metropolitan transit authorities in the state accept credit card payments for

pre-paid fare media (monthly, weekly, daily passes). Most of the public transit systems in the state offer some form of pre-paid fares as well. Once the LSC program is able to allow for establishment of a "transportation account" in the system, an early action integration could use the LSC for pre-paid fare media for certain human service programs, facilitated by the arrangements already in place to process credit or debit cards.

The Researchers Recommend. . .

Smart card technology is available to meet the needs of both public transit systems and human service providers. Because of the variety of options and choices that can be made, researchers recommend that there be a continuing dialogue between the public transit industry in the state and state agencies charged with implementing the newly structured LSC program and pilot tests for expanding the program.

The Texas Comptroller of Public Accounts provides coordination of information about electronic benefits transfer (EBT) and regularly schedules meetings on projects underway and planned. Just as the retail grocery trade is involved in these meetings, the public transit providers should monitor EBT activities through this channel. This information is important to both urban and rural transit providers. As metropolitan transit authorities plan their own smart card programs, knowledge of the LSC program technology choices can help ensure compatibility.

As more human service agencies are able to utilize the LSC to provide benefits, there will be greater opportunities to use the LSC for transportation services. At a minimum, the LSC could be used to purchase pre-paid fare media from transit systems. In an ideal situation, social service agencies and small urban and rural transit systems could share in the costs of a system that uses the LSC as the fare media.
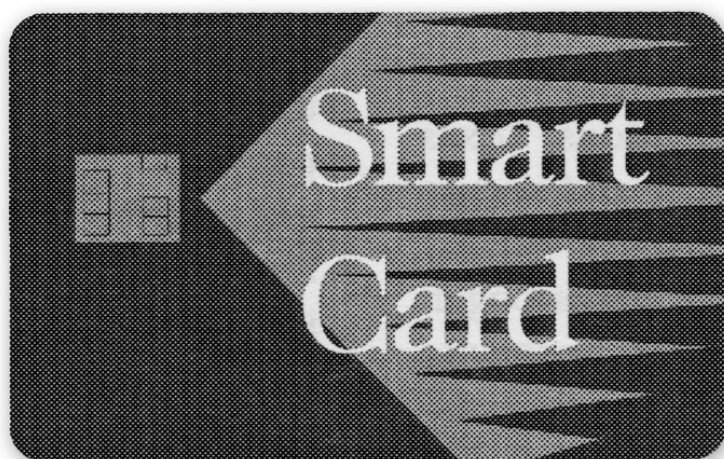
The Smart Card

For More Details...

The research is documented in Report 1766-2, *The Potential Integration of Smart Cards by Public Transit Operators and Human Service Agencies in Texas*

Research Supervisor: Cynthia Weatherby Gilliland, TTI, cinde-weatherby@tamu.edu, (817) 462-0518

Key Researchers: Co-RS, Darryl D. Puckett, TTI, d-puckett@ttimail.tamu.edu, (713) 686-2971

Katherine F. Turnbull, TTI, k-turnbull@ttimail.tamu.edu, (979) 845-6005

TxDOT Project Director: Margot Massey, mmassey@dot.state.tx.us, (512) 416-2809

To obtain copies of this report, contact Dolores Hott, Texas Transportation Institute, Information & Technology Exchange Center, (979) 845-4853, or e-mail d-hott@tamu.edu. See our on-line catalog at http://tti.tamu.edu.

TxDOT Implementation Status
December 1999

The following items are the products identified for this project:

1. identification of cost for implementation of smart card technology for the collection of transit fares and

2. an action plan for the statewide or widespread deployment of smart card technology for the collection of transit fares to include short- and long-term efforts, potential costs, funding sources, anticipated benefits, and roles/responsibility of agencies. Status: Pilot test was done in Temple. Will wait until FY 01 or FY 02 to implement, due to timetable established for electronic benefits transfer (EBT) card upgrades by Comptroller's EBT Task Force.

The use of EBT technology is currently under review by many state agencies, led by the State Comptroller of Public Accounts. Significant upgrades are needed in the current Lone Star Card (LSC) to expand potential usage beyond the benefits presently distributed through the LSC. The Comptroller estimates that upgrades and new pilot programs can be undertaken in FY 2001 or thereafter. TxDOT must continue to monitor this process in the interim and identify pilot sites for deployment of the enhanced EBT transit card. Statewide deployment can then follow, including grant funding for the purchase of card readers and necessary hardware and software.

For more information, please contact Dr. Khali Persad, RTI Research Engineer, (512) 465-7908 or e-mail kpersad@dot.state.tx.us.

YOUR INVOLVEMENT IS WELCOME!

Disclaimer