Simplifying Coordination in Rural Transit—Technology Really Does Work

The RideCARTS Card Project

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Project Partners

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Federal Transportation Administration
What Is The RideCARTS Card Project?

A proposal submitted by CARTS to the FTA Office of Mobility Innovation in response to a “rolling call for projects” to demonstrate the effectiveness of ITS solutions in rural transit settings.
What Did the Project Do?

Demonstrated the use of MDC technology as a gateway to improve data collection processes, simplify fare collection, enhance coordination opportunities with Human Service agencies, and improve the responsiveness of service and the quality of the ride.

Established a branded electronic fare media for CARTS that serves as a platform for coordination with any purchaser of transportation, human service or otherwise.
CARTS: One of 38 Texas RTDs
• 7,500 square miles
• 100+ communities
• 350,000 annual trips
• 88,000 hours service
• $4.4 million budget
CARTS Equipment & Facilities

• 55 paratransit buses
CARTS Equipment & Facilities

- 55 paratransit buses
- 10 fixed route buses
CARTS Equipment & Facilities

- 55 paratransit buses
- 25 Sedans
- 10 low floor minivans
- 10 fixed route buses
- 4 commuter buses
CARTS Equipment & Facilities

- 55 paratransit buses
- 25 sedans
- 10 low floor minivans
- 10 fixed route buses
- 2 commuter buses
- 6 intermodal terminals
Project Objectives

• Automate fare collection
  – Magnetic stripe / electronic card readers

• Move to paperless, personless reporting and data collection

• Establish electronic card as tool for coordination
The Answer?

Mobile Data Computers (MDC)
How Does MDC Work?
How Can MDC Work?

Paper/Cash system
• Paperless, no cash

Advance reservations
• On-the-fly scheduling

Person-intensive reporting
• Automated reporting and data collection
Linking the CARTS Side...
The CUSTOMER Sides!

- TxDOT
- Cities
- TDH
- TDoA
- CAPCO
- Medicaid
- County Government
- Financial Institutions (Banks)

Automatic Vehicle Locator
Electronic Cash Register
Passenger Counter
Transit Fare Card
Lone Star Card
Other Data Sources
Credit Card
Debit Card

CARTS Office
Radio Modem Link to LCRA Network
RF Link
CARTS Bus
Two-Way Radio

LCRA EDACS Radio Network
Improve Data Collection

Reports, Reports, Reports, Reports...
Improve Data Collection

Paperless, Personless, Accurate
Simplify Fare Collection

- Cash is risky
  - 65 buses = 65 fareboxes over 7500 sq mi

- Accounting is expensive
  - Thousands of nickels, dimes, quarters...
Improve Service

• “Where’s my ride?”
  - Automatic Vehicle Locators
  - Computerized route planning

• “Can you turn that thing down?”
  - Silent communication

• “Can I go NOW?”
  - Ability to reroute vehicles
Improve Cash Flow

Almighty Giver

CARTS

services  services  services
Improve Cash Flow

Almighty Giver

CARTS

services

services

services
The RideCARTS Card

• Easy to buy, easy to use
• Fare discounts
• Equal treatment
• Fewer cash transactions
• Provides real-time data and accountability to human service agencies purchasing transportation.
Utility of the RideCARTS Card

RideCARTS Card Electronic Portal

- Provides accountability with real-time data and information on passenger trips.
- Provides security by virtue of no cash or billing transactions other than electronically loading funds on the card.
- Provides flexibility by allowing the agency to transfer funds from card to card or program to program as needs or travel demand change.
- Flexibility for the customer as the card has multiple “purses” which can fund personal travel needs as well as other agency sponsored trips.
- Caregivers or relatives can easily ensure the customer will have travel funds by setting up electronic fund transfers as needed to cards.
What about Security?

RideCARTS Card has it covered.

• Funds are never “on the card”

• Card is a Mag-Stripe card, chosen over proximity card for security.

• When a transaction is placed the card number is encrypted for the transaction.

• Card processor provides real-time account authorization back to the bus.

• All client information is encrypted and secured from unauthorized use.
New! Fare cards
now travel more easier.

CARTS
Questions?

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