



The Houston METRO Q Card

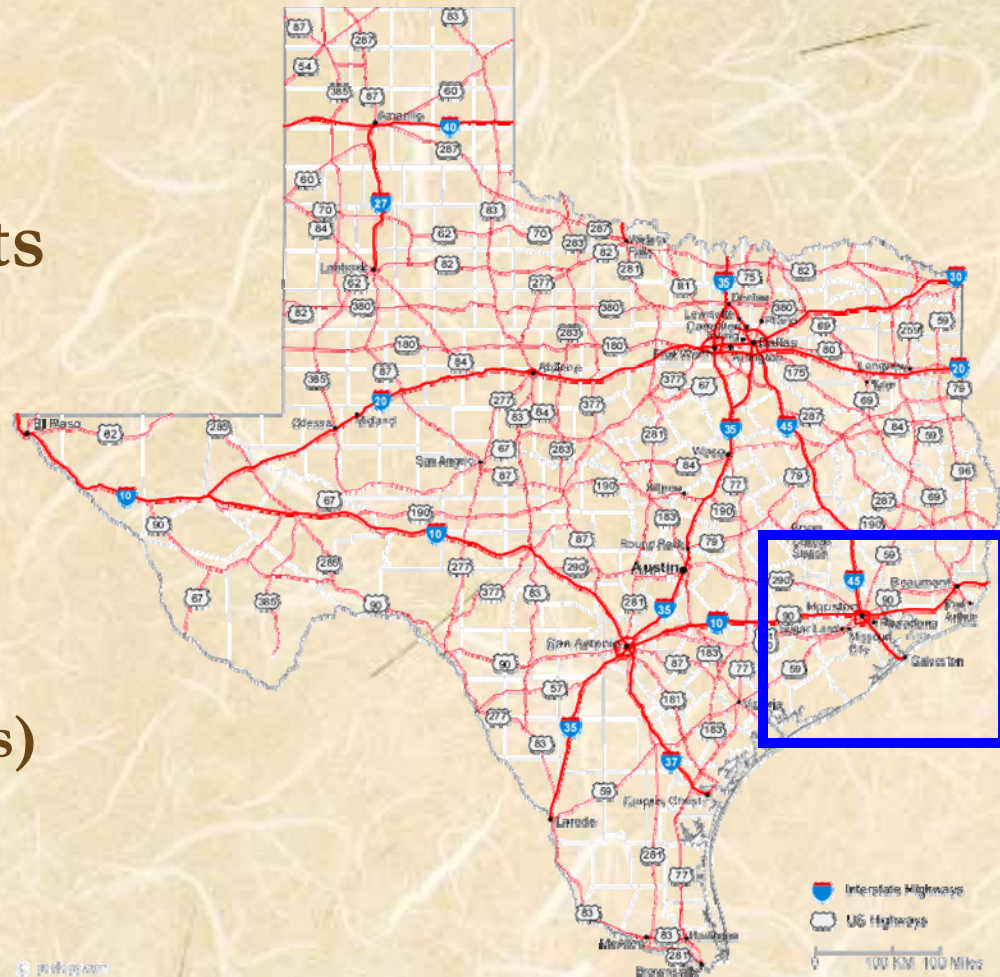
Moving a City from Magnetics
to Microprocessors





The City - Houston

- 2 million residents
- 404,000 hectares
(1,700 square miles)



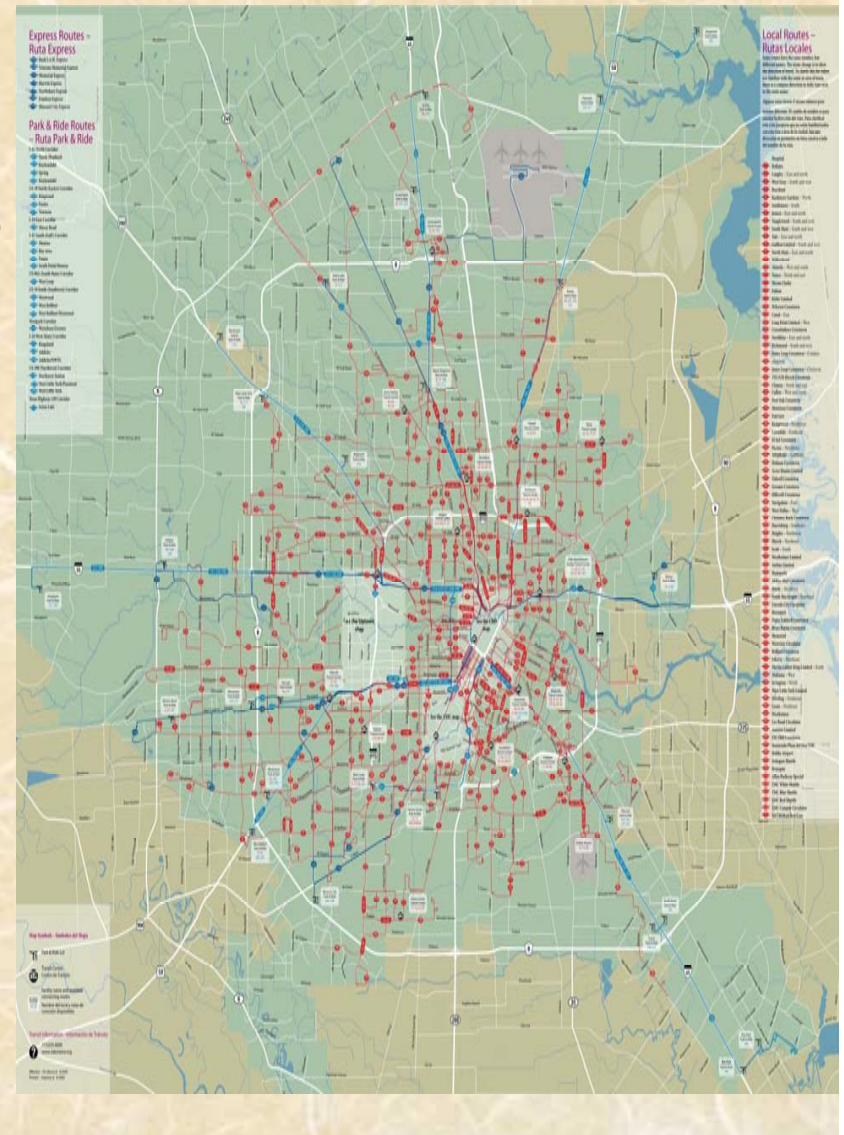


The Transit System

- **Metropolitan Transit Authority of Harris County, Texas**

(Houston METRO)

- Service area = 404,000 hectares (1,700 sq. ml)
- 120 million boardings in 2005
- 300,000 daily boardings





Houston METRO - Bus

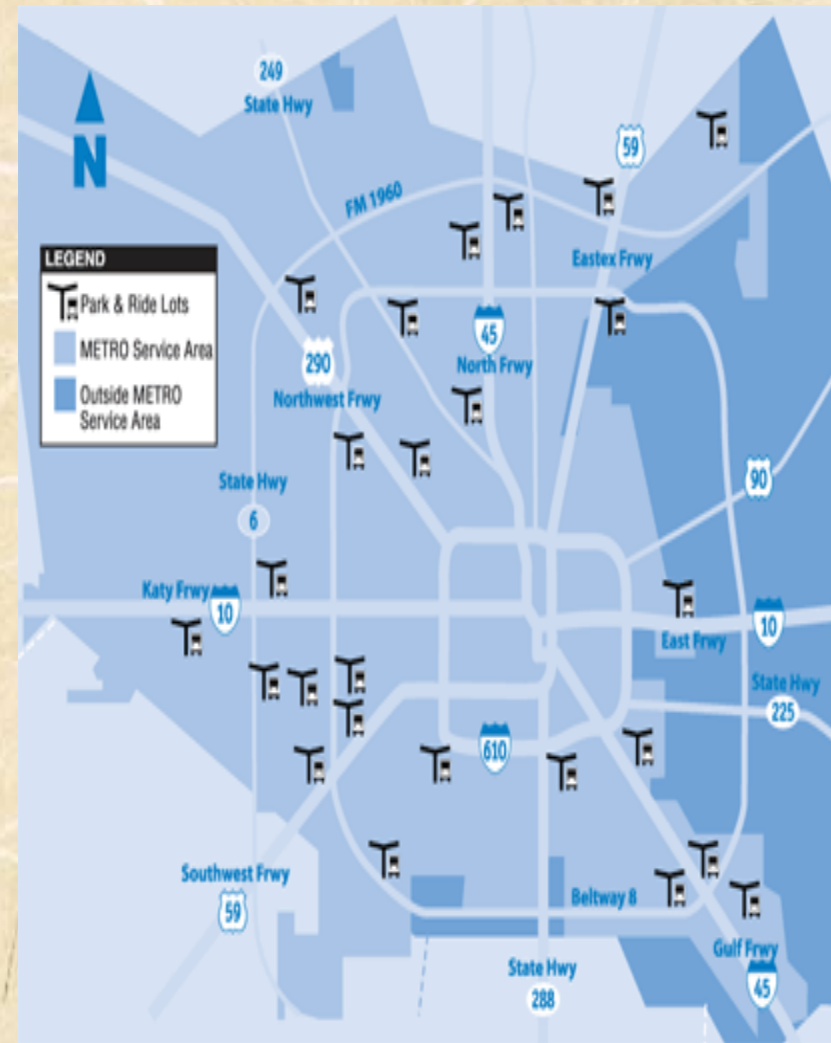
- 1,200 fixed route uses – 137 routes



Houston METRO – Other Facilities



- 26 Park + Ride parking facilities
- 185 kilometers of High Occupancy Vehicle (HOV) highway lanes



Houston METRO – Rail

- 16 Stations
- 12 Kilometer
(7.5 mile)

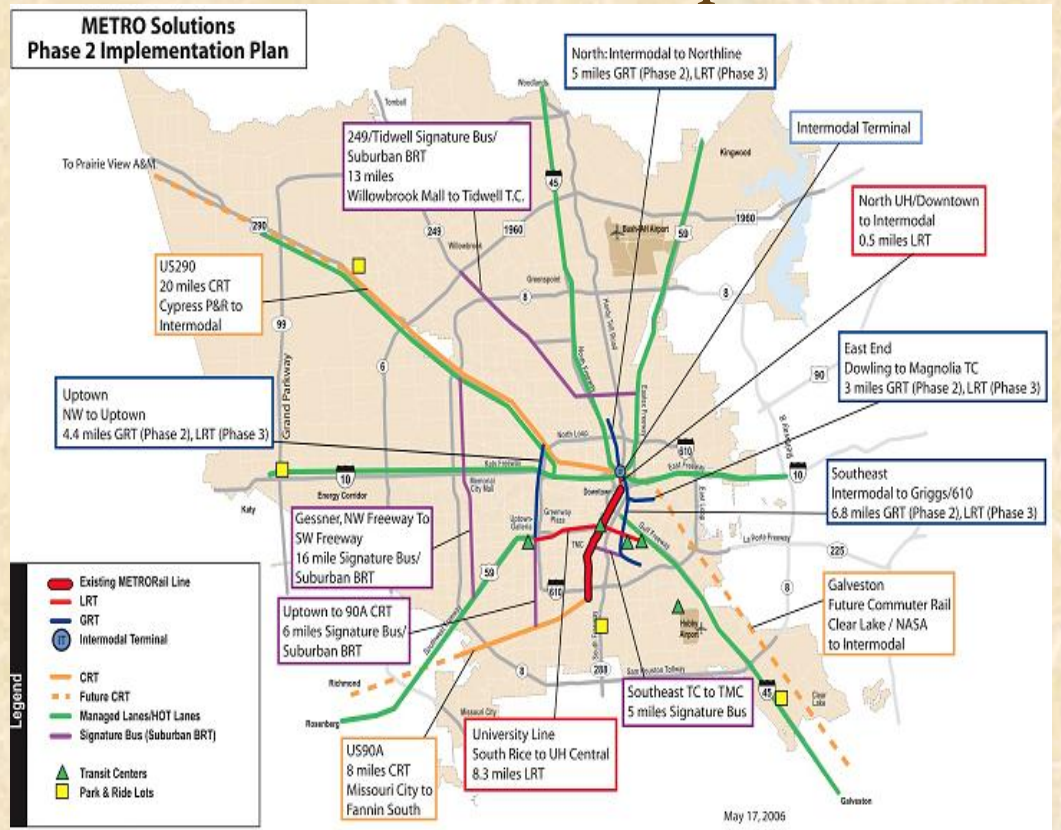




Houston METRO - Rail

12 Kilometer (7.5 mile)

160 kilometers (100 miles)
under development





Current Fare Collection System

Cubic Fareboxes

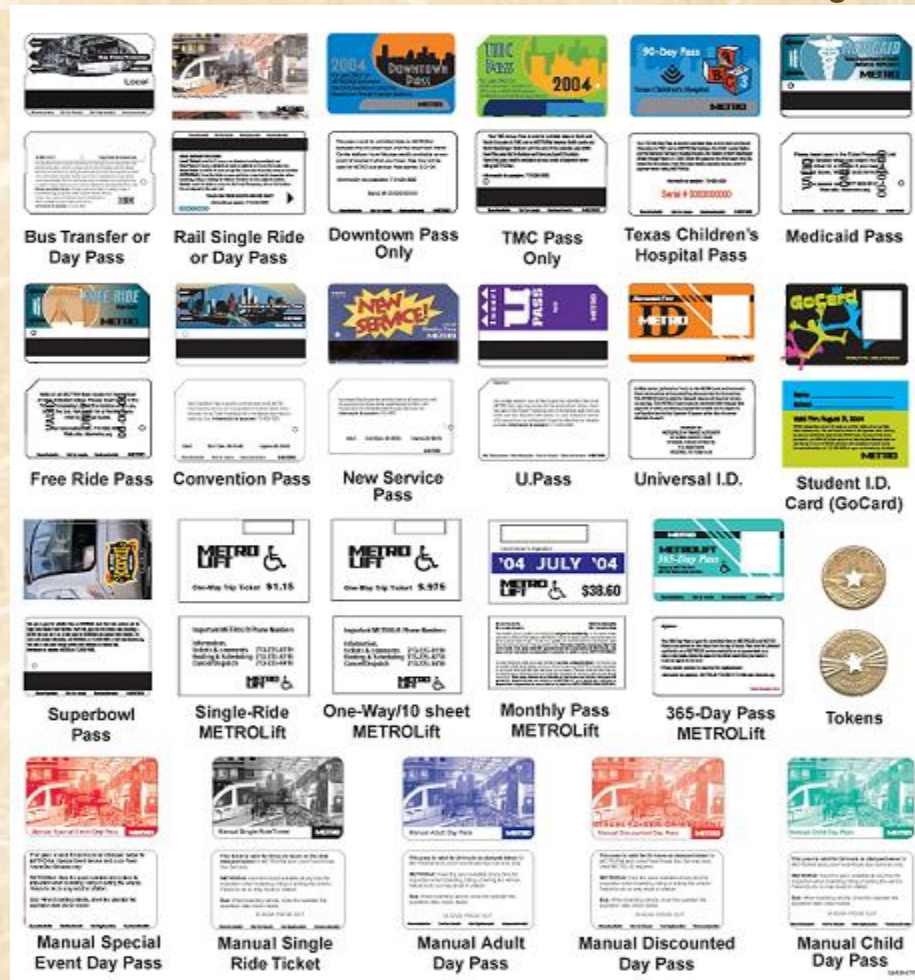
Scheidt & Bachmann
TVMs





Current Fare Collection System

Over 65 types
of instruments



Houston METRO – Rail

- Open Access Rail Platforms





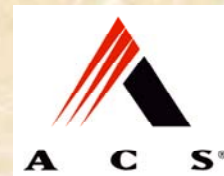
Why Smart Convert to Smart Cards?

- **Single revenue process for bus and rail**
- **Reduce reliance on bus fareboxes**
- **Wireless transmission of Transaction Data at Bus**
- **Improve speed of boarding – dwell time**
- **Tool to simplify fare structure**
- **Provide means for retail payments**



Procurement Process

- **Assistance from LCL Advisors, Inc**
 - Project Development + Implementation
 - Experienced in electronic fare collection processes
- **Select system with service-proven transit uses**
- **Visit sites to observe system operation and discuss with agencies**
- **Selection of ACS / Ascom**





Selection Criteria

- **Worldwide Experience in Service-Proven smart card operations**
- **Open architecture**
- **Minimal proprietary technology**
- **Pricing**



Project Implementation

- **Contract signed – November 2005**



- **Baseline Bus System installed – May 2006**
– 1,200 Bus Card Readers



Project Implementation – Rail

Platform Validators
attached to all TVM
units

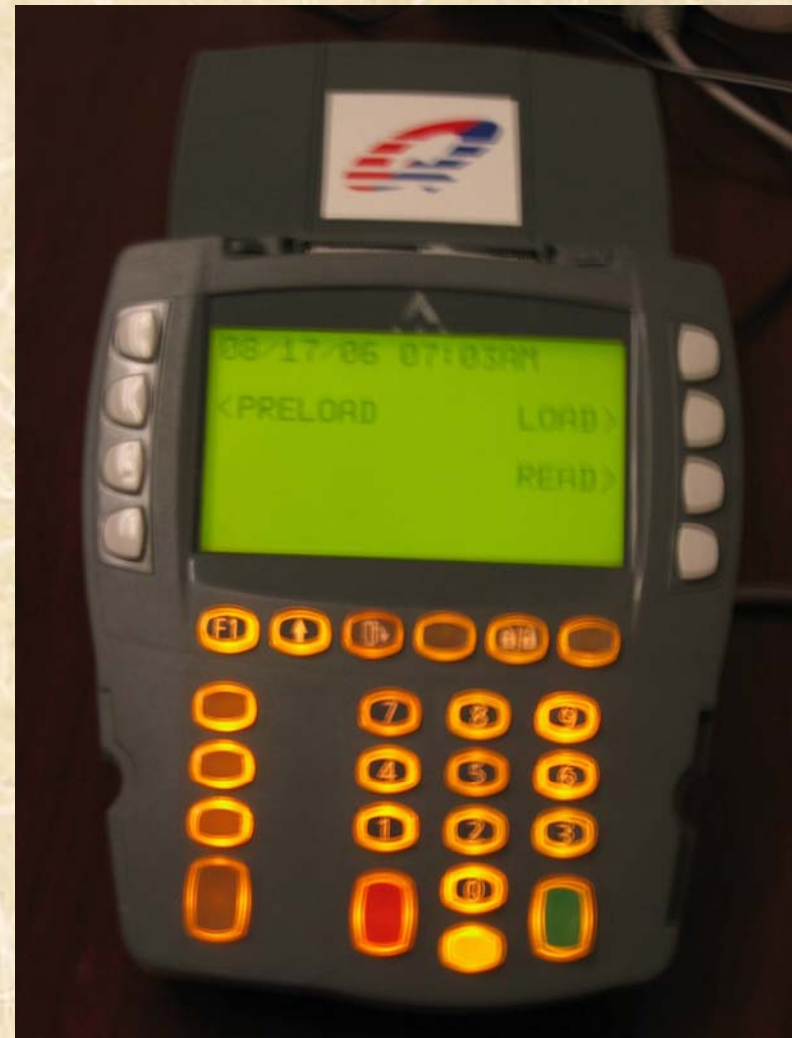


Handheld
Inspection Units



Project Implementation – Retail

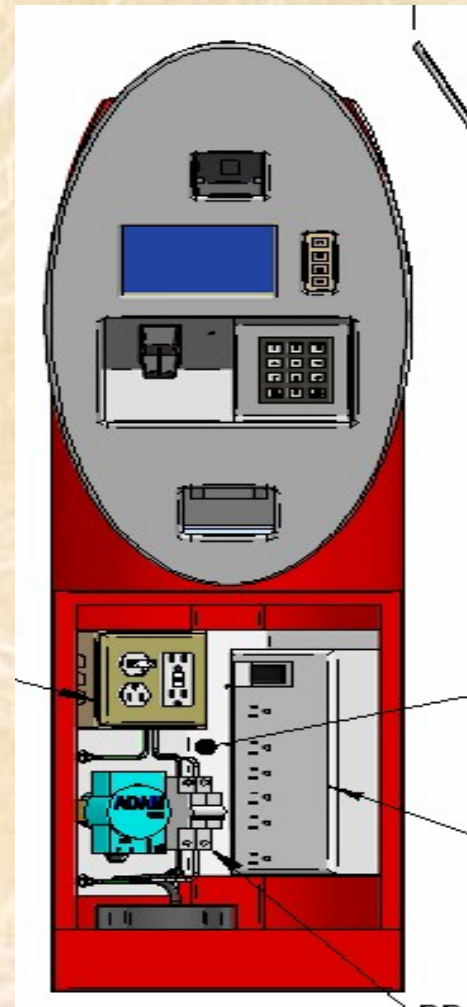
- 450 Retail Point of Sale units
- Revenue System Server





Project Implementation – Cashless Points of Sale

- **50 Cashless Point of Sale Devices**
 - For installation at Park & Ride Lots, Transit Centers





Moving the City to Q

- **AWARENESS**
- **PROMOTION**
- **ACCESS TO Q CARDS**



METRO Q Card





Moving the City – Awareness of the Card

- **Public Education Campaigns**
- **Public Demonstrations**
- **Press Relations**
- **Community Relations – introduction to community groups and associations**



Moving the City – Promoting the Card

- Street & Building Banners
- Media Advertising
- Employee reps at stations
- Bus + Rail Drops



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Moving the City – Access to the Card

- **Original 180 retail sites expanded to 450 to issue 500,000 reusable Mifare 1K Cards**
 - Groceries, Money Centers, Petrol / Gas Stations
- **Pre-loaded disposable Mifare UL smart cards at 1,000 sites**
- **Cashless Point of Sale devices**
- **Ticket Vending Machines**
- **Phone, Mail, Internet**



Project Implementation – Internet

- Internet Services
 - Buy products,
 - Add value
 - Account management
- Subscription Service
 - Automatic product or value extension when card reaches pre-defined refresh level.

Home - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://localhost/houston/account_req_account_info.html? Go Links >>

Houston Metro

MTC Home Patron RideSponsor

Sign Up

Register

Account Holder Information

Do you have Account# No Yes Account#

Contact Name
First Name M.I. Last Name

Address 1

Address 2

City

State
GA - Georgia

Zip Code

Email

Retype Email

Daytime Phone

Evening Phone

Cell Phone

Fax

Account Settings

PIN

Verify PIN

Yes, I want to register my Smart Card.

Continue >>

Done Local intranet



Moving the City – Access to the Card

- **Other Potential Approaches**

- **700 City Parking Meters – Add Value, use Q Card to pay for parking**

- **Add Value Units on Buses – allow add-value for cash at rear of bus**



Impact on Fare Policy

- **Smart Card project introduced in concert with complete restructuring of all fare policies**
 - **Simplify fares – without raising fares**
 - **Provide patrons with Q Card Benefits**
 - **Potential Loyalty Programs – Free Trips earned with paid trips**

Houston Q Card Goals

- **Reduce Operating Costs**
- **Speed Trips**
- **Provide new benefits to patrons**
- **Place in the pocket of all Houstonians**

