



*Transit Wi-Fi: THE ELEMENTS OF A SUCCESSFUL PROJECT, AND STRETCHING YOUR DOLLARS WITH ADVANCED APPLICATIONS OF WI-FI EQUIPMENT*

TransITech 2008



INTELLIGENCE in Transit

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# Presenter Info

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# Contents

- Why Wi-Fi?
- Elements of a Successful Wi-Fi Project
- Case Studies of Success
- Give Away the [Antenna] Farm!
- Advanced Applications of Wi-Fi



# Why Wi-Fi?

- **Attract Riders**

“One more reason to ride the bus...”

- **Keep Riders**

“Customer loyalty is earned, everyday...”

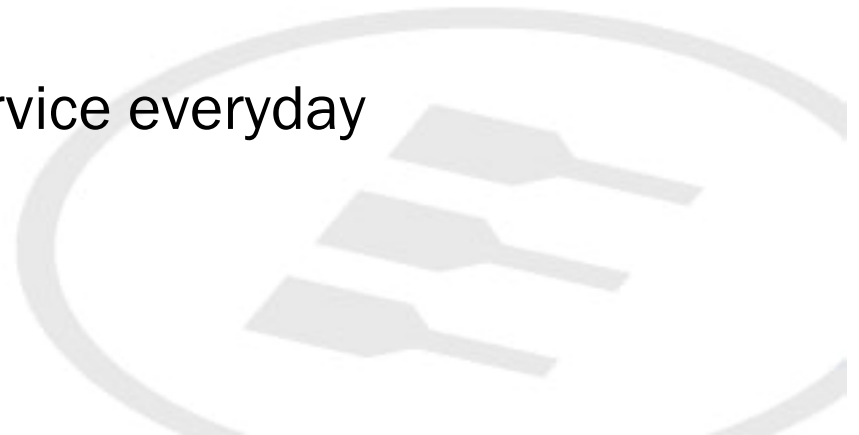
- **Operational Use**

“Security, fare collection, live passenger counts, etc...”



# Four Elements of Success

- **Appropriate Demographics**  
Target the routes which will use Wi-Fi most heavily
- **Active Promotion**  
Use Wi-Fi as a tool to attract and to keep riders
- **Clear Success Metrics**  
Know how to measure success and ROI
- **Consistent Service**  
Riders want dependable service everyday



# Case Studies of Success

- **Monterey-Salinas Transit**  
Appropriate Demographics



- **Foothill Transit**  
Active Promotion



- **Massachusetts Bay (MBTA)**  
Clear Success Metrics



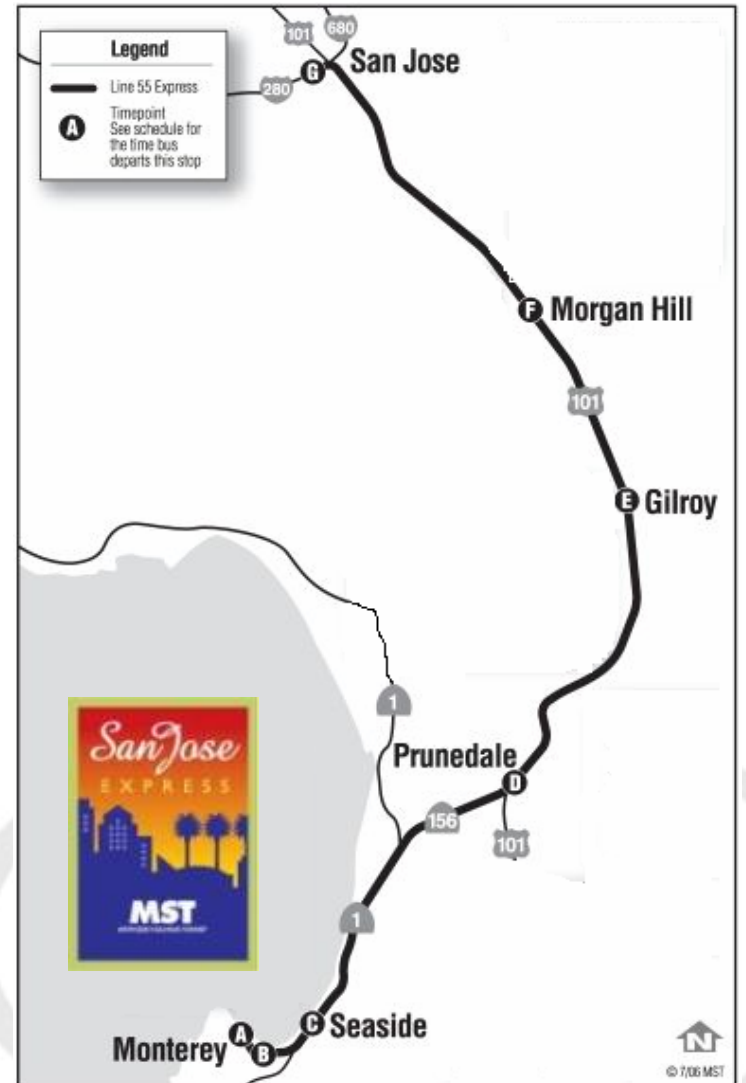
- **Utah Transit Authority**  
Consistent Service



# Monterey-Salinas Transit

## *Appropriate Demographics*

- Targeting Commuters Traveling into Silicon Valley
- Relatively Small Deployment
  - 8 buses out of a fleet of 99
  - 1 route of 36
  - 255 unique users – not bad!



# Foothill Transit

## *Active Promotion*

- “Silver Streak” BRT
  - SMARTBus Project
- Advertisements
  - Bus Rack Cards + Signs
  - Custom, Jazzy Splash Page
  - Website – Route Promotion
- Launched Early 2007, Promotion Continues Today

➤ Results:  
4,244 uses in last 180 days



# Silver Streak

Foothill Transit

Introducing Foothill Transit's Silver Streak, a revolutionary new way to travel between Montclair and Downtown L.A.



this new service offers you fast service, convenient connections, a relaxing atmosphere and stylish good looks.

- 12-15 minute frequency
- low floor for easier access
- \$2 one-way fare for the entire line
- advanced fare system for faster boarding
- natural gas fueled Cummins V8 engines
- state-of-the-art articulated 6-foot coaches
- three convenient, extra-wide doors
- onboard video, GPS and Wi-Fi capabilities
- 30 minutes faster than current local plus service
- improved ergonomic design for greater comfort

12-15 minute frequency



Grand & Olympic

Union Station

USC Medical Center

Cal State L.A.

El Monte Station

The Plaza at West Covina

Pomona TransCenter

Montclair TransCenter

ROUTE MAP

# Massachusetts Bay (MBTA)

## *Clear Success Metrics*

### “Commuter Rail Connect” Wi-Fi:

#### Targeted Pilot Program

- Large public announcement
- Specific target route: Framingham/Worcester
- Parvus is one of several vendors

### Metrics:

#### Usage, Stability, Acceptance

- How to measure usage
- How to see system status
- Feedback e-mail

#### Since Official Launch: January 28, 2008

- 3,450 unique users on Parvus equipment
- 9,340 total connections
- 37 devices deployed



# Massachusetts Bay (MBTA)

## *Clear Success Metrics*

### Feedback from MBTA

“This is one of the most well-received programs we have ever done.” – Chief of Staff

### Dealing with the Negative

“I'm really excited about the possibility of being able to do work on the train to and from the office, but today's experiment was a dismal failure for me.” – Commuter



# Utah Transit Authority

## Consistent Service

### From Pilot to Full Deployment...

- Entire Commuter Bus Fleet, MCI Coaches
  - Increase passenger dependency
  - Increase passenger count
- Ensure All Buses are Online
- Monitor and Maintain Fleet
- Reliable, Helpful Customer Support
  - 24/7 live technical operators
  - Responsive support e-mail
  - Technically detailed online help
- 1,040 Users First Week (2/8 – 2/15)

### Get Your "Internet On the Go" on UTA Express Buses



Want to increase your productivity and enjoy your commute more than ever before?

Now you can with the new "Internet On the Go" wireless Internet (WiFi).

#### Connecting to UTA WiFi on the bus is easy:

- Check your list of available wireless networks for "UTA\_WiFi" and connect
- Read and agree to the "Terms of Internet Service Use"
- Click "Go"

Using the latest technology, UTA now delivers WiFi to its entire fleet of MCI express buses. Instead of wasting your time trapped in traffic, you can use your wireless laptop or PDA to:

- Catch up on e-mail
- Surf the Web
- Start work early through your VPN

For more information, visit [www.rideuta.com/wifi](http://www.rideuta.com/wifi).

For technical support call (866) 470-6897.

Questions or comments may be e-mailed to [wifi-support@rideuta.com](mailto:wifi-support@rideuta.com).



# UTA - Stretching the Dollar Advanced Wi-Fi Applications



Not Just for Passenger Use



# UTA - Stretching the Dollar

## Advanced Wi-Fi Applications

### UTA Overview

- Existing Mobile Data Computer (MDC)
- Dedicated WLAN Connection for MDC
- Four Bus Yards/Depots
- Cisco-based Secure WLAN in Yards/Depots
- Operational Data using Garage/depot only
- New Parvus Passenger Wi-Fi System

### End Goal

- Passenger Wi-Fi
- Full Time Operational Data for Real-time Communication
- Capability for Additional Real-time Devices



# UTA - Stretching the Dollar

## Advanced Wi-Fi Applications

“AP Mode”



- Passenger Wi-Fi
- MDC Connection Disabled
  - Real-time connectivity option
  - QoS Priority



# UTA - Stretching the Dollar

## Advanced Wi-Fi Applications

### “Depot Mode\*”



- GPS “Fence” Triggers Switch
- Passenger Wi-Fi Disabled
- MDC Connection Enabled



# Give Away the [Antenna] Farm!

*Each device with a separate antenna ?*

- **Consolidate *All* Antennas into One**  
WiFi, GPS, etc
- **Select More Advanced Wi-Fi Equipment**  
Allow for future expansion of applications
- **Make a Long-Term Wi-Fi Strategy**  
Goal: Best value in the end



# Advanced Applications of Wi-Fi

- **Wireless data download of non-wireless legacy systems**  
DVR, GPS, AVL, APC, EFC, etc.
- **Remote access for streaming video**
  - Remote connections
  - Security personnel near the bus have direct access to live cameras.
- **Field Supervisor Personnel**  
Data and Dispatch Automation
- **Paratransit**
  - Dispatch real-time routes, pick-ups, maps, directions, etc
  - In-route Passenger Training
- **Real-time Passenger Information**
  - Next Bus
  - Driver Feedback
  - ADA Announcements





Thank you!

Q&A session to follow.



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