National Rural ITS Conference

Big Sky, MT

August 14, 2006



ITS Solutions for Rural Transit

"Managing and Coordinating Transportation in Rural Communities Using Transit ITS Technologies"







Today's Agenda

- Overview of RouteMatch Software
- What is Transportation Coordination
- Technology's New Role in Community Transportation
- ☐ Advanced Transportation Management Systems & Coordination Tools
- Case Studies & Best Practices



RouteMatch Software Overview

- ☐ Founded in 1999 and incorporated in January 2000.
- A dedicated customer-focused staff of 40+ engineers, consultants, and customer support representatives.
- Headquartered in Atlanta, GA, with offices in North Carolina, South Carolina, Massachusetts, Iowa, Texas California, and Washington Sate.
- Over 160 installed public, private, and non-profit transportation organizations in 36 states nationwide.



RouteMatch Offices, Atlanta, GA



The RouteMatch Focus

☐ Industry:

- ✓ Public and Human Service Transportation
- ✓ Brokerage and Managed Care Transportation
- ✓ Non-Emergency Medical Transportation

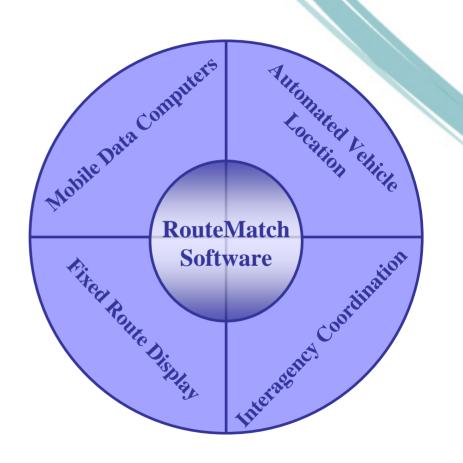
☐ Technology:

- ✓ Intelligent Transportation Systems (ITS)
- ✓ Scheduling and Routing Optimization
- ✓ Integrated Geographical Information Systems (GIS)
 - Computer Aided Dispatching
 - ➤ Local, Regional, and Statewide Coordination
 - Advanced Data Management
 - ➤ Wireless Integration
 - Customer access via the Internet



The RouteMatch Solution

- ☐ A simple, "user friendly," modular software design.
- ☐ Integrate with the "best in breed" ITS providers.
- ☐ This approach allows technology to grow as the agency grows.





RouteMatch Customer Locations











It could be...

A cooperative arrangement between transportation service providers to improve the performance and operational efficiency of their service.



Coordination is also **SHARING**

- Multiple agencies with similar goals in disparate places.
- Government and various providers or funding sources.
- Fixed route system and demand response service providers.

Shared Objectives

Shared Knowledge

Shared Power

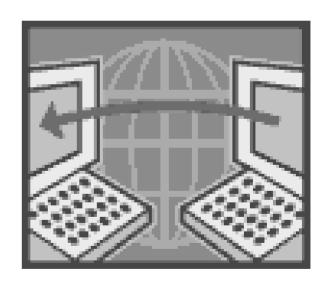
Shared Success





The Technology Perspective

The ability to link systems, data, funding and people to improve the performance and operational efficiency of transportation services.





The New Role of Technology in Community Transportation





The New Role of Technology in Community Transportation

- **□** Federal initiatives:
 - ✓ USDOT United We Ride
 - ✓ USDOT Mobility Services for All Americans
- ☐ State initiatives
- □ A communicator reducing institutional barriers.
- ☐ Improved system efficiency and effectiveness.





FEDERAL INTERAGENCY COORDINATING COUNCIL ON ACCESS AND MOBILITY

Action Plan KEY DELIVERABLES

- GOAL 2 CONSOLIDATED ACCESS
 - "To simplify access to transportation services and to enhance customer service through the development of a comprehensive and coordinated transportation system." ¹
 - Deliverable #3: "Computerized consolidated reservation, scheduling, dispatch, payment, billing, and reporting systems developed and disseminated."

⁽¹⁾ Federal Interagency Coordinating Council on Access and Mobility, <u>Implementing the Executive Order on Human Service Transportation Coordination's Action Plan Key Deliverables</u>.

USDOT: JPO & FTA Mobility Services for All Americans (MSAA)

■ Builds on USDOT's United We Ride efforts through the use of Intelligent Transportation Systems (ITS)

■ MSAA Objective:

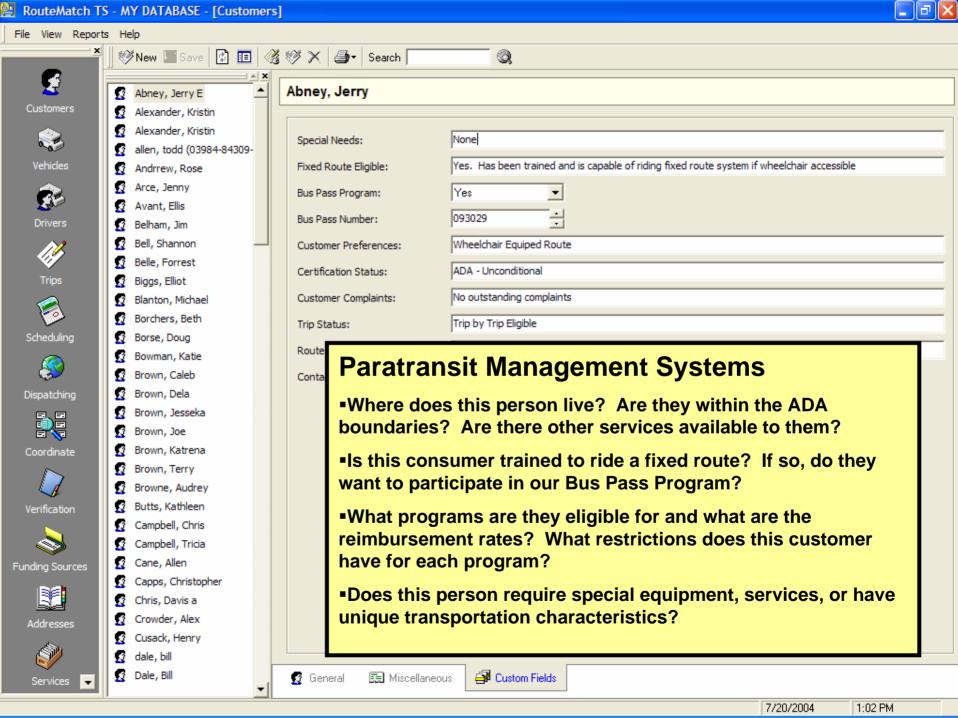
"Replicable/Scalable Traveler Management Coordination Center (TMCC) that provides one-stop, unified, customer-based travel information and trip planning services, and supports coordinated human service transportation operations." ¹

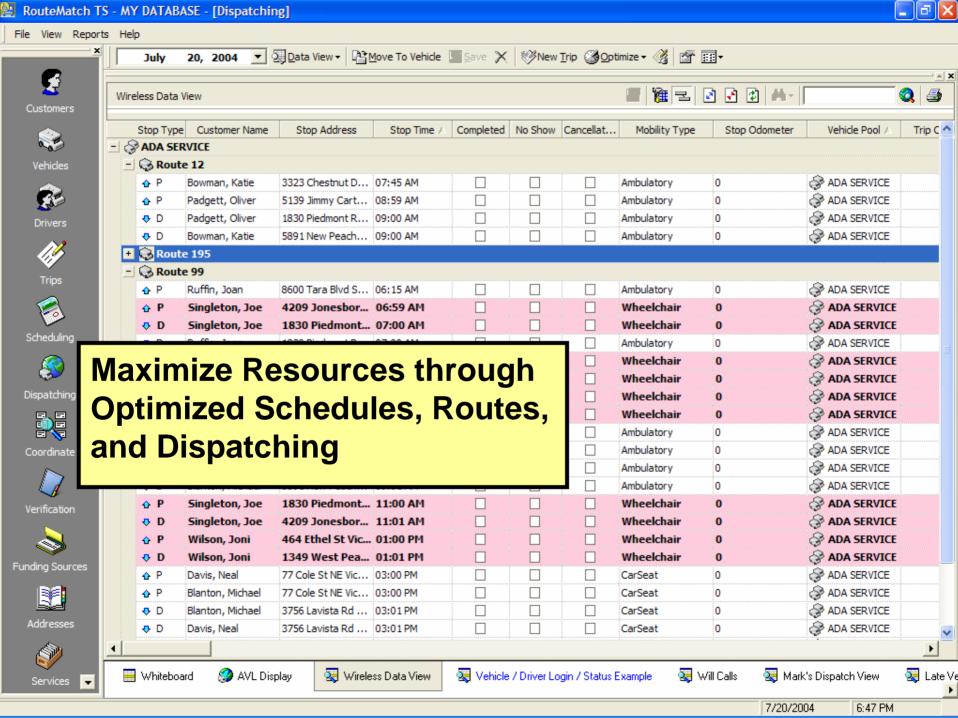
(2) http://www.its.dot.gov/initiatives/initiative4.htm



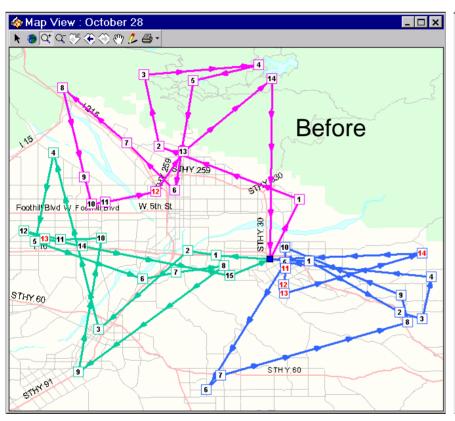
Advanced Transportation Management Systems

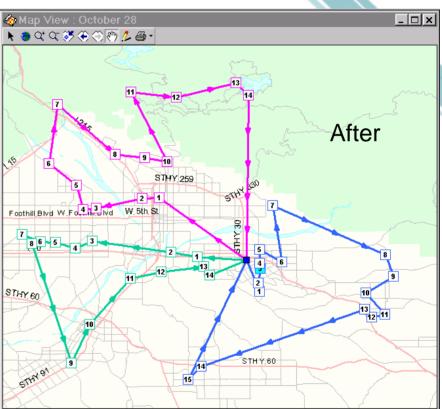




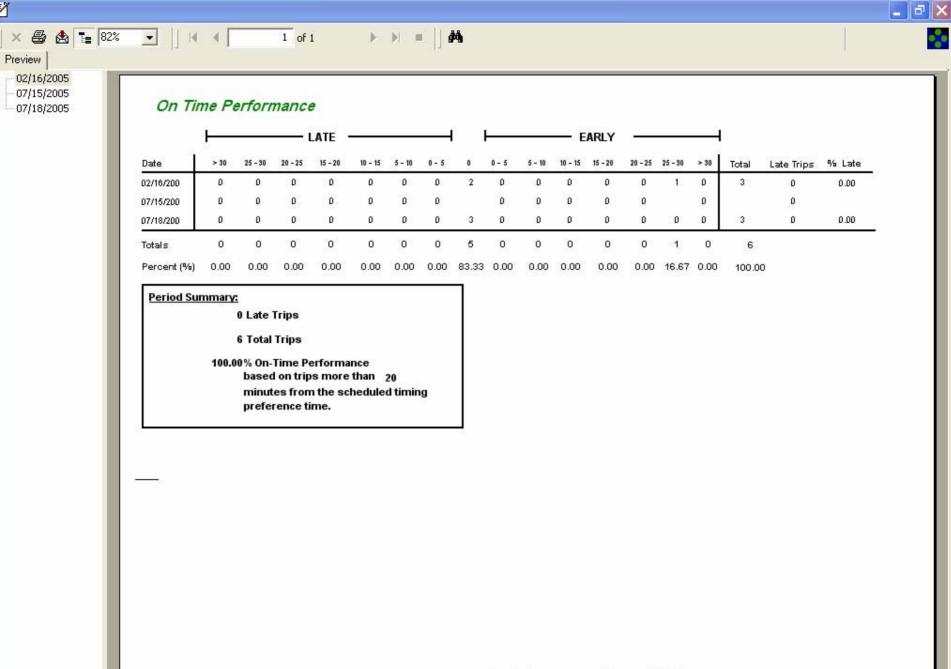


Before and After Routes



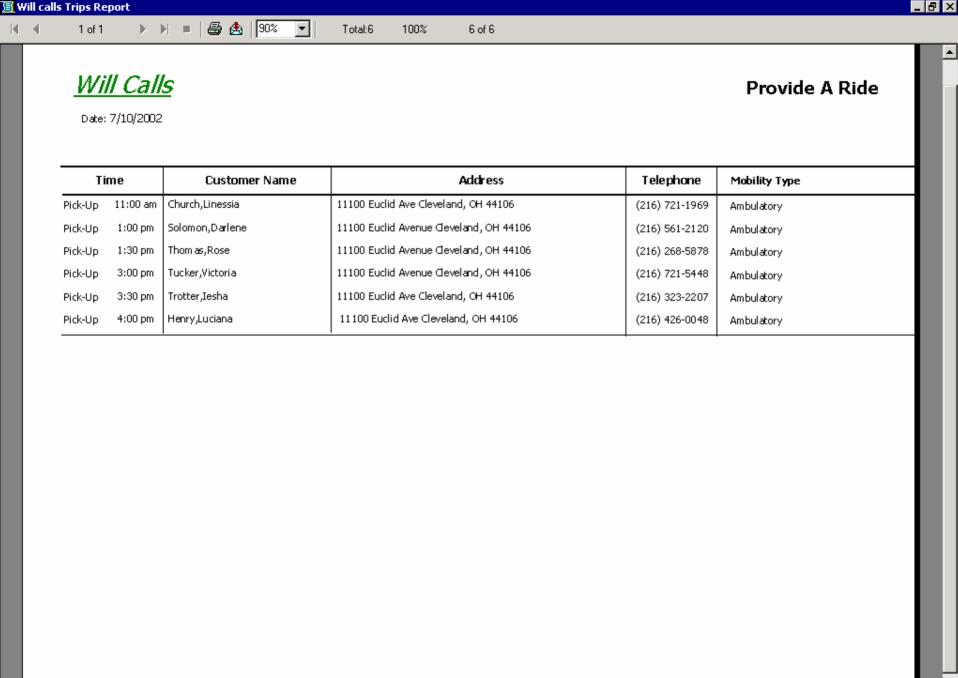


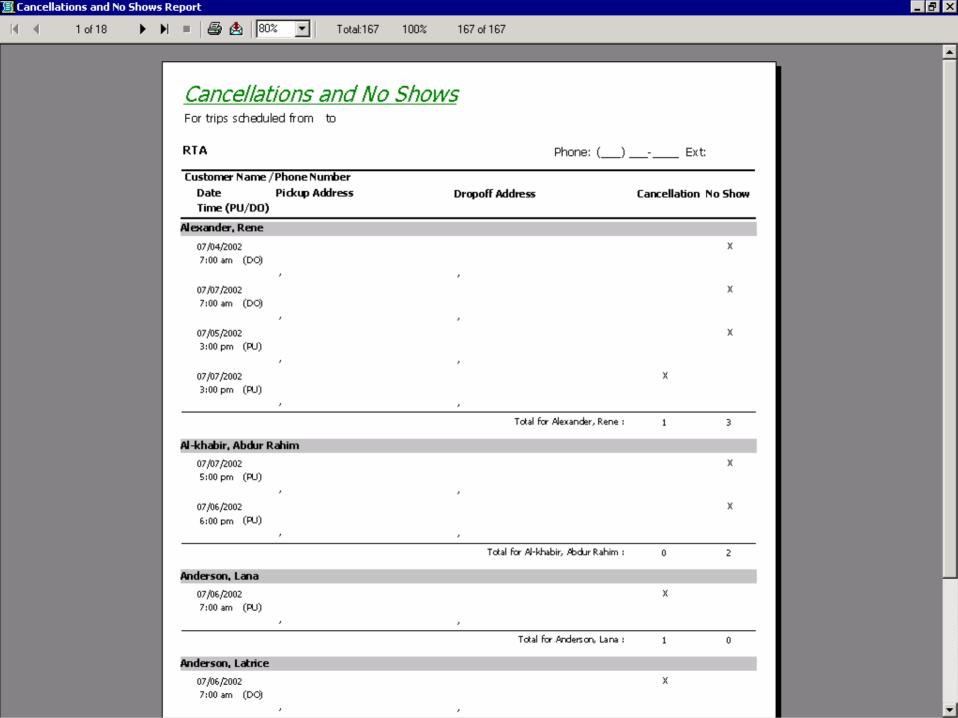


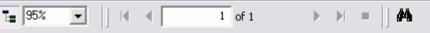


Page 1 of 1

Print on: 7/21/2005







Transportation Request Notification

Dear :

Your request on for assistance with transportation to medical providers has been handled in the following manner:

Approved from through .

Date of Medical Service already Scheduled:

(0)

Time of Appointment:

Location of Medical Service:

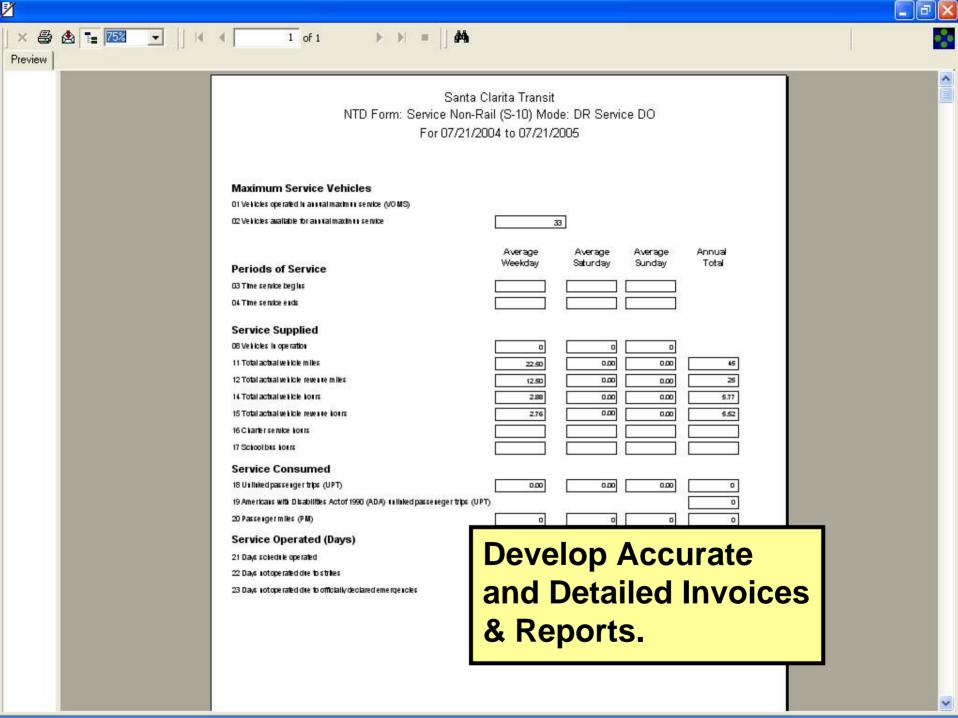
Time to be Picked Up:

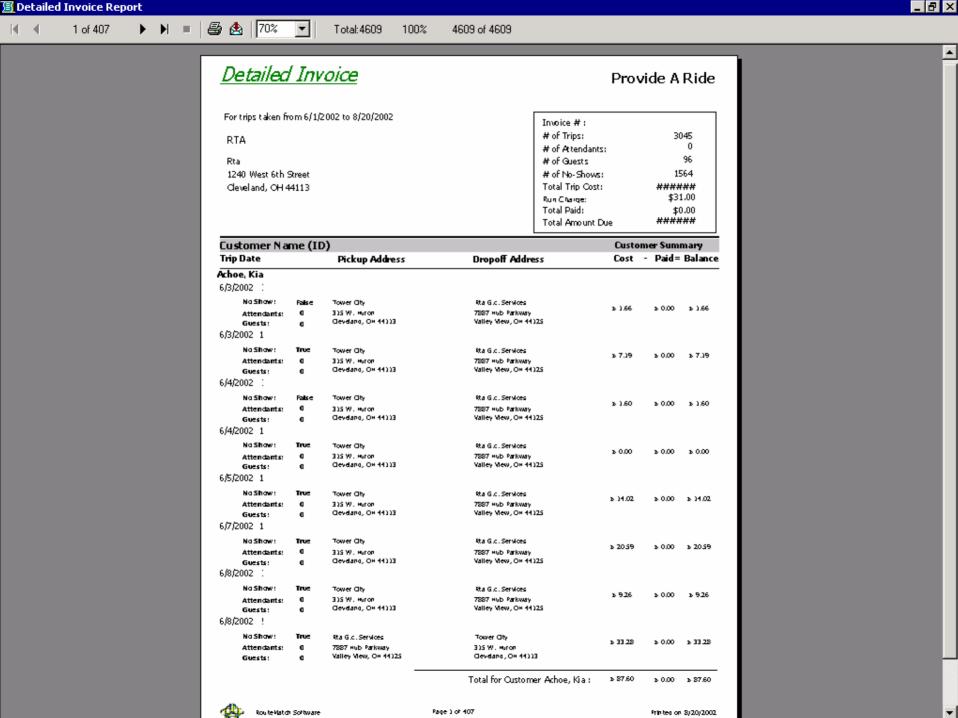
Method of Transportation:

Return Trip Arrangements:

Explanation:

*If you disagree with the decision, you have 60 days from the date of this letter, until 12/24/2005, to ask for a hearing. If you do not ask for a hearing by this day, you cannot have a hearing.









Operating Statistics

For 6/1/2002 To 7/1/2002

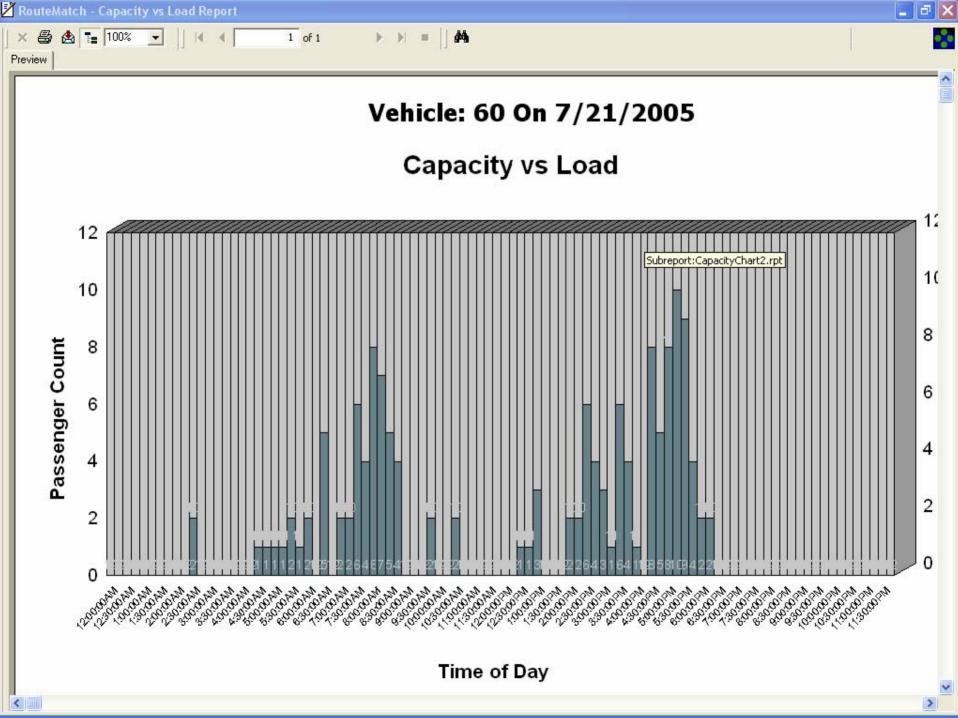
Provide A Ride

	Operating Days	One Way Trips	Attendant	Guest	NoShow	Total Passengers	Cancelled Trips	New Customer	Revenue
	Service Hours	Revenue Hours	Non Revenue Hours	Service Miles	Revenue Miles	Non Revenue Miles	Passengers/ Service Hour	Service Miles/ Service Hour	Passengers/ Service Mile
06/01/02 - 07/01/02	31	8549	67	2489	2081	11105	1218	1373	\$ 479587.65
	6293.00	4832.00	1461.00	72912.00	-750812.00	823724.00	1.76	11.59	0.15
July 2002	31	8282	143	2653	1789	11078	999	1476	\$ 217965.46
	6656.00	5197.00	1459.00	83153.00	9162.00	73991.00	1.66	12.49	0.13
June 2002	30	8195	61	2366	1999	10622	1157	1315	\$ 470860.02
	5967.00	4568.00	1399.00	70540.00	-752454.00	822994.00	1.78	11.82	0.15



Page 1 of 1 Printed on 8/20/2002





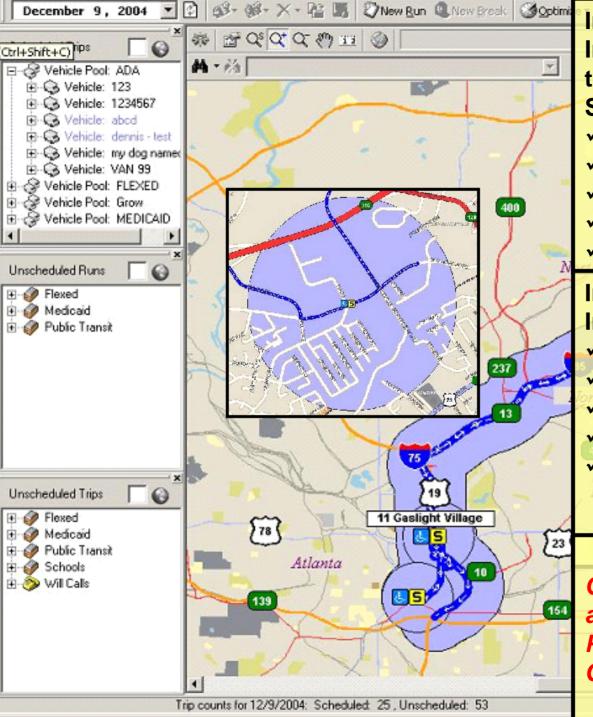
Coordination Tools



Coordination Tools

- Paratransit Fixed Route Interoperability
- Paratransit and Human Service Coordination
- Consumer Access





Integrate Fixed Route
Information into your software
to make a Demand Response
System "Aware" & informed.

- **√Fixed Route Pattern**
- **√**Route Availability
- **√Time Points**
- **✓** Accessibility
- **✓ ADA Boundary Determination**

Integrate Your Bus Stop Information:

- **✓ ADA Accessibility**
- ✓ Walking Barriers
- **✓** Environmental Barriers
- **✓ Physical Descriptions**
- ✓ Curb Cuts, Concrete Pad, Information, Hand Rails, Seats, Shelters, etc...

Coordinate Demand Response and Fixed Route Services to Provide More Options to Your Consumers.

Paratransit In-Vehicle ITS Components



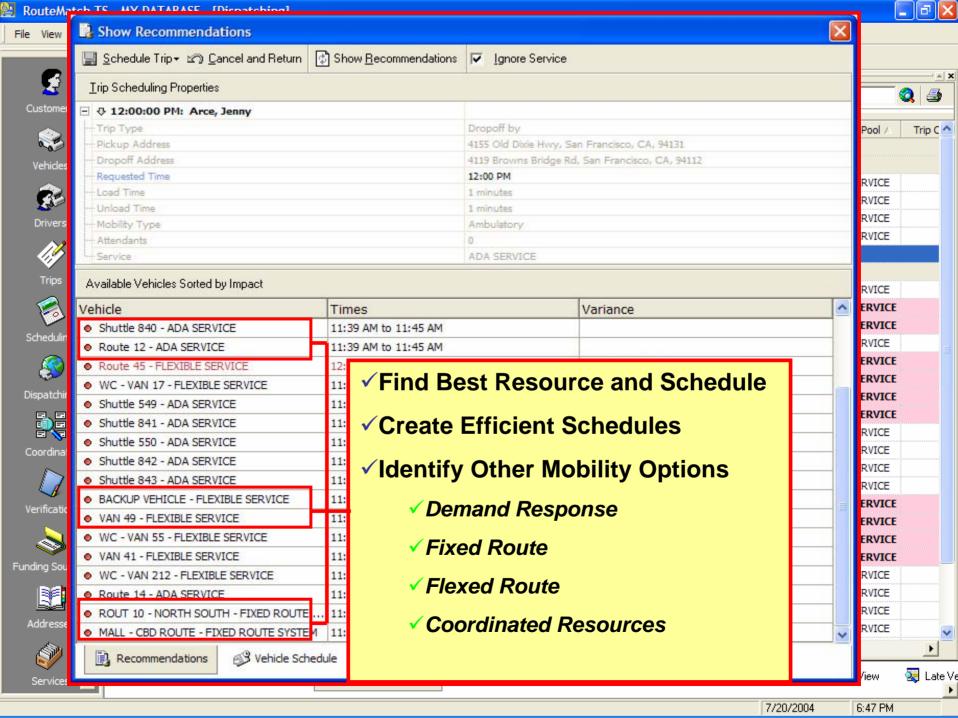
Fixed Route In-Vehicle ITS Components



Automatic Passenger Counting

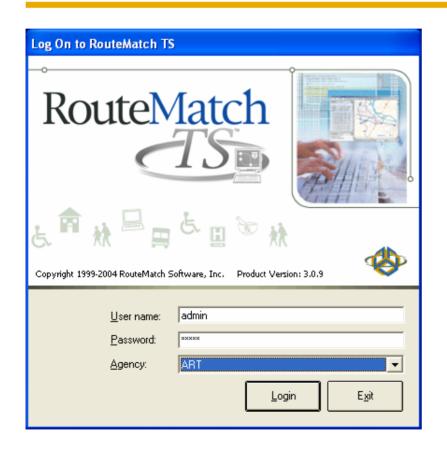
MDT/VLU

- · Data Collection
- · Schedule/Route Adherence
- Manage J1708/RS232 Devices
- · GPS
- · Driver Messsaging
- · Real-time Communication



Paratransit & Human Service Coordination

Coordination Module

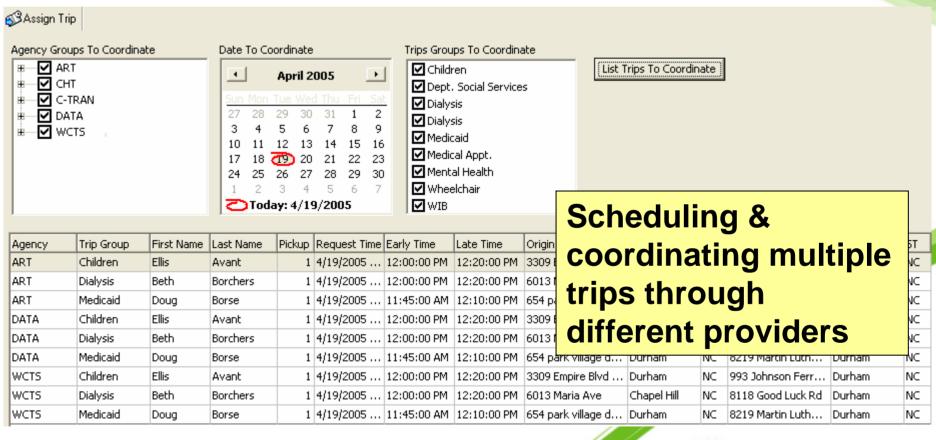






Paratransit & Human Service Coordination

Coordination Module

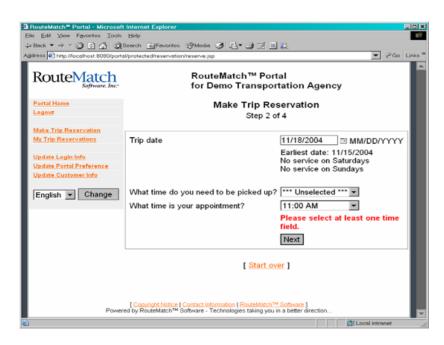




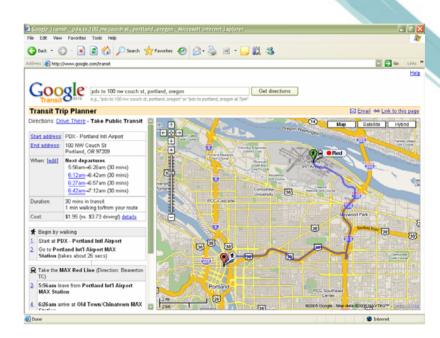
- Web-based Trip planning
- Automated Customer Information Systems
 - Interactive Voice Response (IVR)
- Real time passenger information



Web-based Trip planning



- Online ADA eligibility
- Trip booking



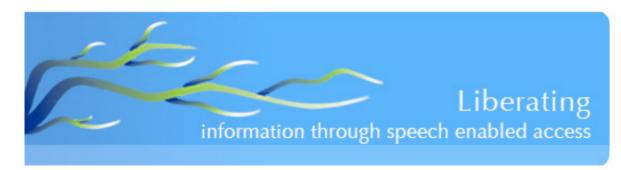
Transit Trip Planning



Automated Customer Information Systems

- Interactive Voice Response (IVR)
- Customer

- Leveraging Mobile Data
- Operations







Real Time Bus Stop Information

- Real time bus information at MY bus stop and about MY bus.
- 80% of riders board at 30% of stops.
- Leverage ITS investment to maximize the greatest impact on the rider's experience and to attract new passengers.



- Statewide Transit ITS Projects
 - ✓ Iowa Rural Transit ITS Consortium
 - ✓ South Carolina Virtual Transit Enterprise (VTE)
- □ USDOT/FTA Rural Transit ITS Demonstration Projects
- □ Regional & Local Community Transportation ITS Projects
 - ✓ Kentucky Medicaid Transportation Regions
 - ✓ Paducah Transit Authority, Paducah, KY



Statewide Transit ITS Projects

- □ Iowa Rural and Urban ITS Consortium
 - Partners: Iowa DOT and the Rural Transit ITS Consortium.
 - Funding: FTA ITS earmarks.

Technologies include:

- Centrally-hosted statewide system
- Scheduling, Routing, Dispatching Software (RouteMatch TS)
- AVL/MDC
- Coordination Technologies
- Web-based ASP Deployment for centralized coordination and standardization.

Route Ma

Statewide Transit ITS Projects

- □ South Carolina Virtual Transit Enterprise (VTE)
 - Partners: SCDOT and 10 regional transit authorities.
 - Funding: FTA ITS earmarks.

Technologies include:

- Scheduling, Routing, Dispatching Software (RouteMatch TS
- AVL/MDC and Interactive Voice Recognition
- Coordination Technologies
- Fixed Route Integration for Small Urban Systems
- Accounting Integration
- Web-based ASP Deployment for centralized coordination and standardization.

Route

- USDOT/FTA Rural Transit ITS Demonstration Projects
 - ✓ Northern Shenandoah Valley Public Mobility Project, Winchester, VA
 - ✓ Sweetwater County Transit Authority, Rock Springs, WY
 - ✓ Eastern Carolina Council of Governments, New Bern, NC
 - ✓ Maryland Upper Shore Transit System: Queen Anne, Talbot, Kent, Dorchester, & Caroline Counties, MD



Regional & Local Community Transportation ITS Projects

- □ Kentucky Medicaid Transportation Program
 - Coordination and brokerage technologies
 - RM partners with five of sixteen regional Medicaid transportation brokers across KY.
 - Integrates public transit, Medicaid, health and human services, and other transportation funding programs into a single, coordinated system.
 - Regional brokers include: Paducah Transit Authority, GRITS, Federated Transportation of Blue Grass, Central Kentucky, and Kentucky Foothills



Regional & Local Community Transportation ITS Projects

☐ Paducah Transit Authority, Paducah, KY

✓ Software Goal: A high trip volume necessitated the automation of paratransit routing & scheduling while reducing time on reporting and errors.

✓ Results:

- Doubled trip capacity from 225,000 to 453,000 per year.
- Billing & Reporting time savings from 5 days to 1 hour.
- During first week, PATS reduced their number of drivers by four.
- Reduced data entry to one person.
- Operates in a paperless environment with AVL/MDC.
- Direct Medicaid billing to Commonwealth of Kentucky.



Thank you!





Contact Information:

Todd Allen

Director of Business Development & Comm. Relations RouteMatch Software 2301 Stonehenge Dr., Suite 116 Raleigh, NC 27612

Telephone: (919) 676-8327

E-Mail: Todd.Allen@RouteMatch.com

