Selecting and Rightsizing APTS Technologies

2007 National Rural ITS Conference
Discussion Topics

• Brief Overview of Idaho’s Advanced Public Transportation Systems (APTS) Project
• Provider Categorization Model and Process
• Alignment of APTS Technologies to Provider Categories
• Questions
Idaho APTS Project

• Funded by FTA 5309 Earmark beginning in FFY2006
• Goal: Provide Technologies and Services to Small Urban and Rural Providers
• First Step: Systems Engineering – Assess Needs
• Subsequent States: Acquisition and Deployment

Challenge:

To Optimize APTS Project Funding through Rightsizing of Technologies to Providers
Technology Portfolios

Provider Categories

SMALL

Technology: Customized Scheduling Spreadsheets, Computer-Aided Scheduling, Automated Passenger Counters, Palmtop Manifests, Phone Systems, Web-based trip planning (Google Transit)

MEDIUM

Technology: Computer-Aided Scheduling, Automated Passenger Counters, Enhanced Website, En-Route Traveler Info, Fixed Route Management, Fleet Maintenance, Mobile Data Terminals, Palmtop Manifests, Fare Media System, Phone Systems, Web-based trip planning (Google Transit)

LARGE

Technology: Automated Scheduling Software, Automated Passenger Counters, Enhanced Website, Fixed Route Management System, Fleet Maintenance, Mobile Data Terminals, Stop Annunciators, Video Security, En-Route Traveler Info, Fare Media System, Phone Systems, Web-based trip planning (Google Transit)
Provider Categorization Levels

Categorization Process:
• Uses information collected through site visits and interviews.
• Reflects degrees of complexity and recognizes different types of service
• Considers present and future needs

Categorization score mathematically derived from transit system factors: size, complexity, capability, service type.

- **LEVEL 1**
  - Categorization Score of 1 to 50:
  - Provider has the size and foundation to operate and manage some less complex APTS.

- **LEVEL 2**
  - Categorization Score of 51 to 75:
  - Provider has the size and foundation to operate some complex APTS and many less complex APTS.

- **LEVEL 3**
  - Categorization Score of 76 to 100:
  - Provider has the size and foundation to operate multiple complex APTS.
Information Gathering

Site Survey
- In-person
- Informal
- Well-documented

Interview Tool
- Captured quantitative data
- Consistent
- Dynamic
Valuation Criteria

SYSTEM SIZE
Fleet Size (10)
Trips Provided (15)
Staff Size (10)
Service Complexity (15)
Coverage Area (10)

SYSTEM COMPLEXITY AND CAPABILITY
Operating Method (20)
Reporting/Invoicing Requirements (10)
Communications (10)

OTHER CONSIDERATIONS
System Coordination
Service Type
## Scoring and Analysis

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Alignment of Technologies to Provider Categories

**CATEGORY 1**
- Computer-aided demand response software
- Emergency Call Box
- Palmtop Manifests
- Communications
- Enhanced Website
- Video Security
- Maintenance Software
- Silent Alarms
- Fare media
- Telephone System
- Stop Annunciators
- Automatic Vehicle Location

**CATEGORY 2**
- Automated demand response software
- Fixed-route System Management
- Automated Passenger Software
- Fare media
- Mobile Data Terminal
- Transit Signal Priority
- Personnel Software
- En-route Customer Information
- Material Detection Systems
- Automated Vehicle Diagnostics
- Customized Spreadsheets
- Emergency Management Coordination
- Telephone System

**CATEGORY 3**
Alignment of Technologies to Provider Categories

**NEED:** Improve Schedule efficiency and adherence

**USER SERVICE:** Support planning and scheduling activities

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Alignment of Technologies to Provider Categories

1. Identify Needs
2. Identify User Services
3. Identify Technologies
4. Categorize 1, 2, 3
5. Tie Individual Provider Needs to Individual APTS
Reporting Results

• Information Gathering
• Scoring and Analysis
• Alignment of Technologies to Provider Categories
• Report
• Request For Information
Contacts

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