2006 National Rural ITS Conference

Idaho Statewide Advanced Public Transportation Systems (APTS) Assessment

Idaho Transportation Department
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Project Team

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Discussion Topics

- Is Idaho really a ‘rural/frontier’ state?
- What are its APTS challenges?
- How is Idaho responding to these challenges?
- What is the ‘APTS Education Workshop’?

Definitions: 'Frontier' and 'Rural'

Frontier

- From Section 799A of Public Health Service Act: less than 7 persons/square mile.
- Frontier Education Center: combination of density, and distance/time to nearest market center – density of 20 persons/mi^2, and 60 minutes/60 miles distance is sufficient to qualify an area as 'frontier'.

Rural

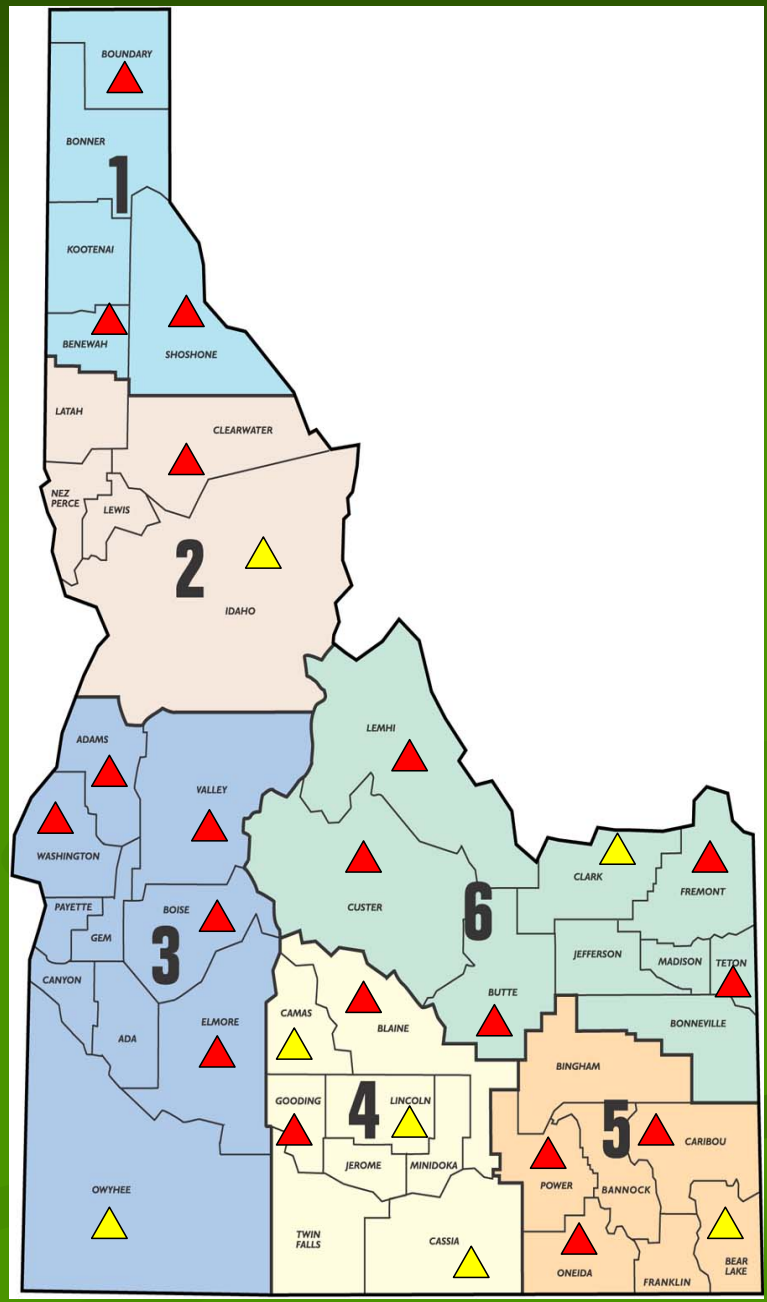
- USDA includes open country and small settlements of less than 2,500 persons.
- 'Grey area' in considering adjacent towns and suburbs.
- For FTA grant purposes, less than 50,000 persons.

Idaho as a 'Rural/Frontier' State

	2005	2010	Designated as Frontier	Currently Served by Transit
Idaho Counties with Population Densities of:				
1-2 persons / Sq. Mile	8	7	8	4
3-5 persons / Sq. Mile	7	5	7	6
6-10 persons / Sq. Mile	9	8	8	6
11-20 persons / Sq. Mile	5	3	3	5
Totals	29	26	26	21

‘Frontier’ Counties in Idaho

- Frontier, Served by Transit
- Frontier, No Transit



Characteristics of Small Urban & Rural Transit in Idaho

Modes of Service	Number of Providers
Total	15
Fixed Route	9
Demand Response	10
Intercity	5

Characteristics of Small Urban & Rural Transit in Idaho (cont'd.)

Total Number of Vehicles	112
Number of Counties Served	34
Annual Boardings	
Total	894,000
Medicaid	76,000
Other Contract	68,100
Total Revenue Miles	2.97 Million
Largest Service Area	18,000 Sq. Miles

Vision and Goals for Improvements in Transit Operations and Services

- Coordinate delivery of services - provide ‘one stop shopping’.
- Improve the use of current transit assets.
- Improve claims process.
- Simplify entry into transportation market by new providers or expansion of operations by existing providers.
- Develop means to integrate travel planning with adjacent states.

Problems, Constraints and Challenges

- Introducing technology to non-technical transit providers & getting buy-in.
- Minimizing technology acquisition costs.
- Reducing maintenance, upgrade and replacement costs.
- Hosting a solution for use by all providers.
- Determining what the project will really cost.

Addressing the Challenges

- **Introducing technology**
- Minimizing costs
- Reducing O&M
- Centralized hosting
- Determining total costs

Educate the providers - develop and deliver an educational workshop for providers and other stakeholders.

Rightsize the technology – define a suite of technologies for a provider based on size and scope of their operations.

Centralize the hosting of backend systems away from the providers – treat as a statewide enterprise.

Addressing the Challenges

- Introducing technology
- **Minimizing costs**
- Reducing O&M
- Centralized hosting
- Determining total costs

Minimize the number of individual installations of server-side systems.

Adopt a 'virtual transit enterprise' approach.

Standardize hardware products and deploy these technologies by geographic area or by technology grouping.

Aggregate hardware and software quantities and develop statewide purchasing agreements to leverage buying power.

Addressing the Challenges

- Introducing technology
- Minimizing costs
- **Reducing O&M**
- Centralized hosting
- Determining total costs

Minimize the number of installation sites.

Standardize software products.

Include technology replacement schedules as part of project budget.

Fund O&M in initial procurement.

Program O&M costs for funding by providers in their operating budgets.

Addressing the Challenges

- Introducing technology
- Minimizing costs
- Reducing O&M
- **Centralized hosting**
- Determining Total Costs

At a major Idaho transit provider's office – not likely.

At ITD's data center – not likely.

At a partner government facility – a couple of possibilities.

At a transportation management center (TMC) – very likely.

At a third party hosting center – several options – very likely.

Addressing the Challenges

- Introducing technology
- Minimizing costs
- Reducing O&M
- Centralized Hosting
- **Determining Total Costs**

Provider categorization and technology profiling allows modular project budget development.

Use of a 'virtual transit enterprise' model results in a clear budgeting path for adding on transit providers.

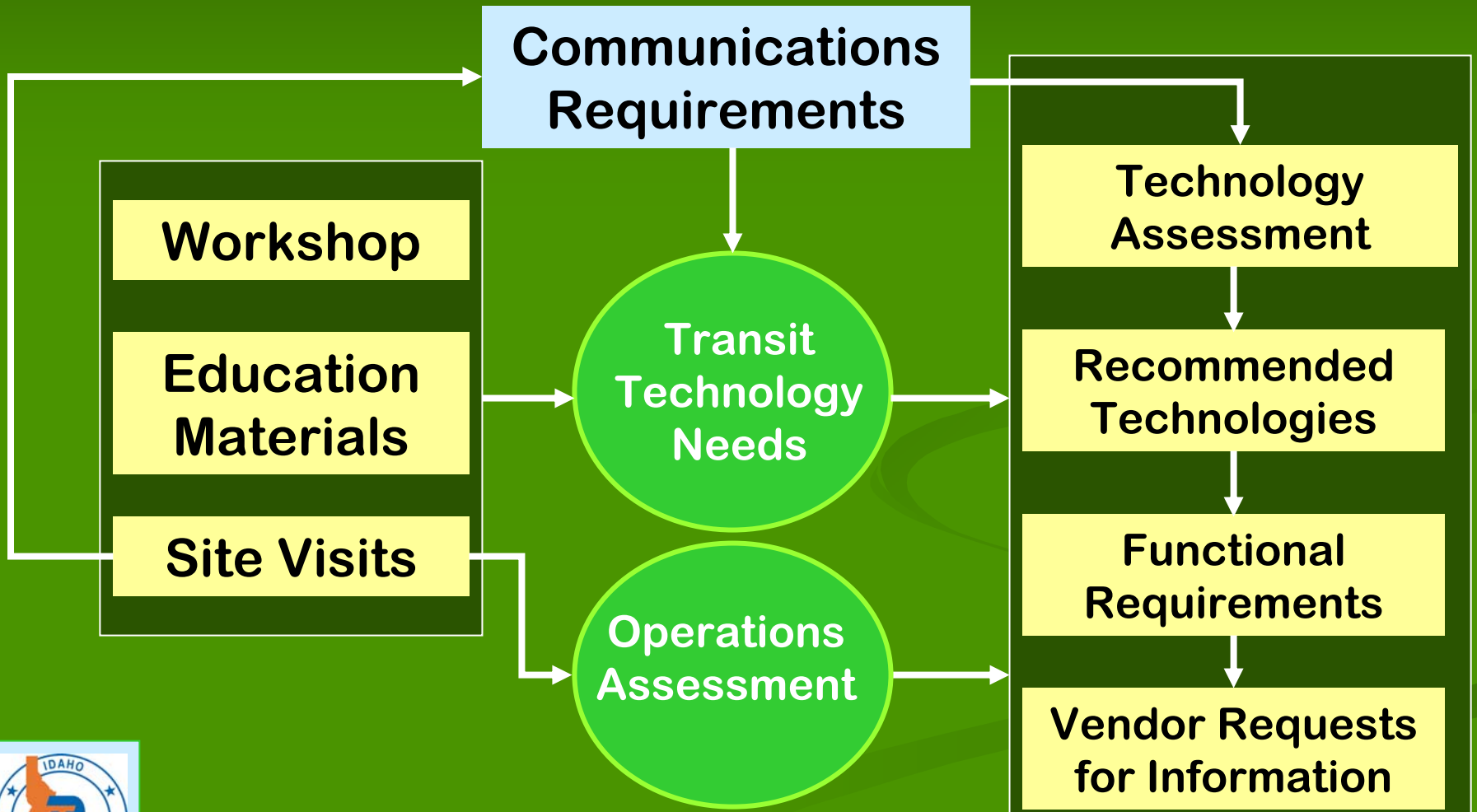
RFI process provides a 'reality check' on what is doable.

Responses from RFI and RFP/RFB process will help refine total project budget.

Idaho's 5309 Earmark for Small Urban and Rural Transit Providers

- In 2004, ITD's Division of Public Transportation applied for APTS ITS Earmark.
- ITS Earmark included in August 2005 SAFETEA-LU.
- $1.6 Million Federal over 4 years - $440K first year – ITD providing initial 20% match.
- Have begun system engineering phase of project and engaged Iteris, Inc.

Iteris / ITD Project Plan



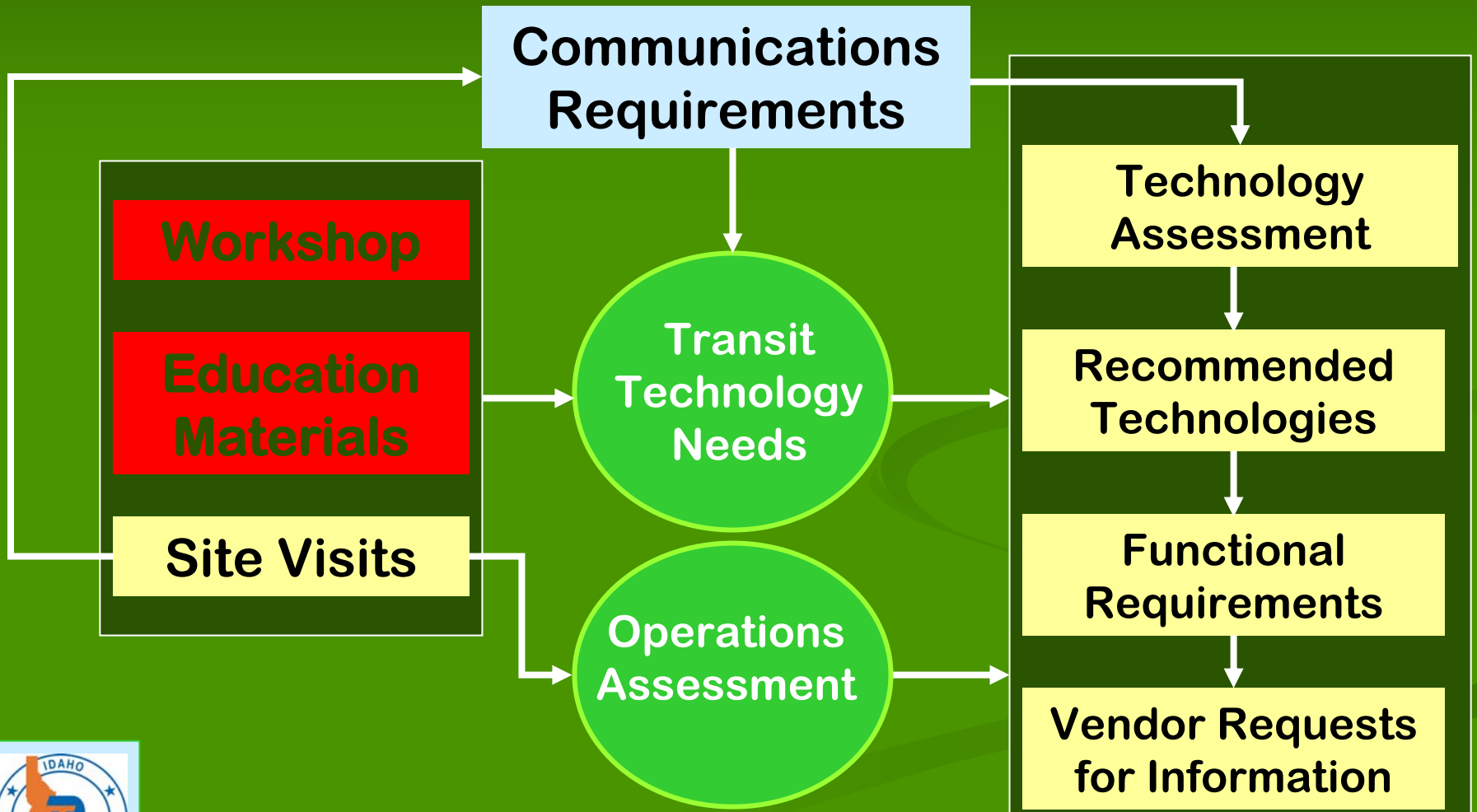
Project Tasks

- Technology Education and Outreach
- Provider Technical Assessment
- Transit Technology Matching
- Operations Communications Assessment
- Customer Communications Assessment
- APTS Final Report

Anticipated Project Results

- An identification of most desired technologies.
- An understanding of each provider's operations.
- A determination of what is needed to implement those technologies.
- Support to purchase and deploy new technologies.

First Step:
APTS Education Workshop



First Step:
APTS Education Workshop

Workshop Goals

- Educate, involve and get buy-in from Idaho transit service providers.
- Begin understanding the differences in technology needs and use among providers.
- Begin identifying the current need for new technologies.
- Learn about other state's experiences with similar deployments of APTS.

First Step:
APTS Education Workshop (Cont'd.)

- Was held August 1st and August 2nd ,2006 in Boise, ID.
- Invited providers, MPO's, advisory groups, planners, other human services transport agencies.
- Invited vendors to participate in technology discussions and trade show.
- Invited other state's transit APTS experts to present their experiences and lessons learned.

Workshop Agenda
Day One

- Project Overview
- A Brief Description of APTS
- The Iowa Experience
- Iteris and Vendor Presentations
  - Fare Media and Management
  - Transit Demand Responsive Software
  - Automated Vehicle Location
  - Transit Security

Workshop Agenda Day Two

- The South Carolina Experience
- Open Forum Discussion
  - Questions answered
  - Needs and opportunities discussed
  - The Project's Next Steps

Getting Executive Level Buy-In and Support is Crucial

First Day's Keynote Address from David Ekern, P.E. - Director of the Idaho Transportation Department

Sample Technology Slide from APTS Overview

Mayday Systems

- Locates distressed vehicles
- Can allow emergency personnel to listen in to on-board activity
- Improves incident response time
- Improves on-board safety
- Can automate maintenance reporting.

Cost = Low

Complexity = Low

Vendor Participation

Trade Show and Presentations

- JP Morgan Chase
- NextBus
- Orbital TMS
- Radio Engineering Inc.
- RouteMatch
- Shiftwatch
- Trapeze

Vendor Presentations

Vendor Trade Show

Vendor Trade Show (Cont'd.)

Sharing Time with Vendors

Sharing Time with Vendors (Cont'd.)

Workshop Success Factors

- Buy-in is critical – strive to include the 'right' stakeholders.
- Make it easy for stakeholders to be involved.
- Seeing the technology is important – include vendors.
- Sharing other states' experiences is crucial!
- Stay committed to sharing information – post-workshop CD, website, etc.

Subsequent Steps:

Transit Provider Technical Assessments

- On site interviews at each property.
- Project team of ITD and Iteris.
- Include other local stakeholders at interviews.
- Deliverables:
  - Needs analysis
  - Provider categorization
  - Technology sizing and matching

Subsequent Steps:

Request for Information (RFI)

'Reality Check'.

- Describe environment and what we think we need.
- Find out what realistic and doable (validation).

From Responses

- Refine Cost Estimate.
- Develop additional funding requests as needed.

Subsequent Steps:

RFP/RFB Process

- Refine and finalize technology design.
- Issue and evaluate RFP/RFB's for technology and implementation services.
- Award ITS Hardware and Software purchasing agreements with 'agency use' clause that other entities can utilize.
- Fold in first *n* years O&M costs.
- Develop service agreements for installation and integration.

Discussion Topics Wrap Up

- Is Idaho really a ‘rural/frontier’ state? √
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- What is the ‘APTS Education Workshop’? √

Our Contact Information

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Questions and Comments?