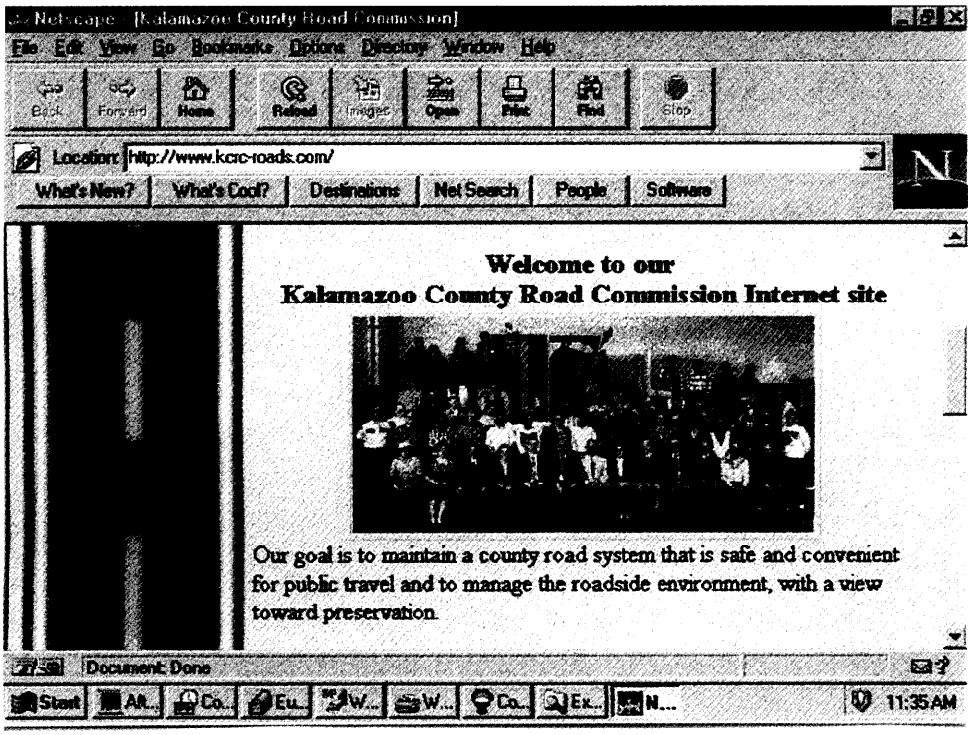
United States Department of Transportation
Federal Highway Administration
Federal Transit Administration

Technology in Rural Transportation "Simple Solution" #12

ENTER@PRISE

Public Agency Outreach for Transportation Management



Introduction

This application was identified as a promising rural Intelligent Transportation Systems (ITS) solution under a project sponsored by the Federal Highway Administration (FHWA) and the ENTERPRISE program. This summary describes the solution as well as opportunities for expansion into the broader context of rural ITS.

Technology Overview

The roles of public sector transportation agencies are often misunderstood or misinterpreted at many levels by citizens. This solution builds upon an agency's outreach activities by promoting communications between the public sector and residents on various issues. This type of communication link provides easy access to residents, travelers, and businesses on the issues of public interest dealt with by various government agencies.

Real-world Example - **Kalamazoo County Road Commission Internet Site**

Overall goal: To allow interaction between the residents of Kalamazoo County, Michigan, and the County's Road Commission.

Technical approach: An Internet site has been developed which provides the road commission's mission, goals, policies, county and local township maps, road and bridge closures and detour information, bids for services and goods, and news releases on vehicle weight restrictions, road project hearings, budget hearings and approvals and board elections.

Current status: The web site is fully operational and can be accessed at http://www.kcrc-roads.com.

Location / geographic scope: Kalamazoo County Road Commission is responsible for nearly 1,200 miles of county roads. The Internet site offers information relating to this network of roads.

Agencies involved: Kalamazoo County Road Commission

Cost information: Costs include the cost of developing the web pages and purchasing space on a web server to house them. Keeping the pages up to date requires further maintenance cost.

Key contact: Kalamazoo County Road Commission. (616) 381-3171

Further Description of Application

Additional technologies may include:

Various other options exist for communicating information on local road initiatives, construction, or closures, for example, including:

- Dial-in telephone recorded messages.
- Dial-in operator-based information services.
- Circulation of newsletters, or advertisement of road projects in the local press.
- Broadcast fax service to information service subscribers.
- Informational billboards or signs at the sites of future construction or maintenance activities.

None of the above systems can offer the breadth and depth of information, and comparable ease of manipulation of information, that is offered by the web site example described above. In addition, most of these sources, although they will be used as supplementary mechanisms, are likely to be less cost-effective from the agency's perspective.

Potential additional uses for this technology may include:

A road information web site could be enhanced to provide many other services including the following:

- Current and forecast road and weather condition information.
- Information on possible detours to avoid construction or maintenance workzones.
- Information on local special events, including parking options, locations and pricing, and suggested routes.
- Information on other local attractions.
- Links to neighboring region's information sites or to state-wide information sites.

Benefits of Application

	Benefits to travelers / the community	Benefits to business / industry	Benefits to the public sector
Direct benefits	Easy and cheap access to local roads information at any time of day current availa ble contracts	Easy and cheap access to local roads information and freeing up agency resources	information is disseminated in a cost-effective manner, freeing up agency resources
Indirect benefits	Residents are better informed of local initiatives		Positive public perceptions of information dissemination activities

Probable Implementation Process

Step One: Agencies should consider their existing information provision services and determine what cost savings or other efficiencies would result from implementing an Internet information site. Alternatively, if the agency is not primarily interested in improving existing operations but aims to start providing new information, then the various options available to them for doing so should be assessed.

Step Two: The agency should determine whether the expertise required to establish and maintain the Internet site is available within their organization, or whether it would be cost-effective to acquire this expertise in-house. If these are not possible options, the agency should identify and contract with an appropriate service provider.

Step Three: Working with the Internet service provider, if applicable, the agency should design, implement, and test their service. In order to ensure maximum visibility and use of the system, the agency should ensure that links to neighboring, regional, or state sites are created wherever possible.

Step Four: This last task involves ongoing operation and maintenance of the Internet site. It may be that once the system is fully functional, routine updating of information could be performed in-house, only calling upon professional Internet services to assist with major redesign efforts. As part of this step, the agency should collect and analyze user feedback to ensure that the users' needs continue to be met by the service.

Potential Implementation Issues

It is likely that such an Internet service would supplement a parallel telephone-based information service. If this is not the case, the agency should consider supplying a help-line for users who experience difficulties with the service, or for users who would prefer to deal with an operator when needing additional information or assistance.

When deciding to deliver an Internet information service, the agency should be sure not to underestimate the effort required to maintain the service and keep all information current. If the site is not maintained adequately, the service and the agency could lose credibility with users.

Solution's Contribution to Broader Rural ITS Developments

The information dissemination achieved through this solution will play a significant role in virtually every component of rural ITS developments. Improved communications between the transportation providers and the residents, especially in rural areas, will contribute to decisions about which products and services are most important and interesting to residents.

The Technology in Rural Transportation: "Simple Solutions"

Project This project was performed within the ENTERPRISE pooled-fund study program, and aimed to identify and describe proven, cost-effective, "low-tech" solutions for rural transportation-related problems or needs. "Simple solutions" studied within the project focussed on practical applications of technologies, which could serve as precursors to future applications of more advanced systems, or intelligent transportation systems (ITS).

More than fifty solutions were initially identified and documented. Of these, fourteen solutions were documented and analyzed in detail. The transportation technology applications were also categorized according to the seven Critical Program Areas (CPAs) defined within the U.S. Department of Transportation's Advanced Rural Transportation Systems Program. It is hoped to utilize the information gathered within this study to perform outreach to local level transportation professionals to introduce them to ITS and its potential benefits.

For More Information: A full report on this study is available from the FHWA R&T Report Center, telephone no. 301-577-0818. **Title:** Technology in Rural Transportation: "Simple Solutions." **Publication No.:** FHWA-RD-97-108. This research was conducted by Castle Rock Consultants, Eagan, Minnesota. For more information, contact Paul Pisano of FHWA, HSR-30, 703-285-2498. For more information about ENTERPRISE, contact Bill Legg, Washington State DOT, 206-543-3332.

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