U.S. Department of Transportation
Federal Highway Administration

Priority, Market-Ready Technologies and Innovations

Transportation, Economic, and Land Use (TELUS) System

Problem: Metropolitan planning organizations struggle with expanded role in transportation decisionmaking

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 changed the future of transportation planning. Local elected officials within metropolitan planning organizations (MPO) were empowered with major roles in shaping the transportation networks in their communities. This expanded role in transportation decisionmaking, however, brought new responsibilities. Citizens, elected and appointed officials, and other stakeholder groups now were approaching MPOs to advocate projects, ascertain the status of projects, and lobby for project priorities. As a result, MPOs needed to reinvent their decisionmaking processes, expand their databases, and create more responsive public outreach programs.

Putting It in Perspective

As Edward Weiner wrote in *Urban Transportation Planning in the United States*:

- "Each metropolitan area had to prepare a long-range plan."
- "A reasonable opportunity for public comment was required before the long-range plan was approved."
- "A Transportation Improvement Program (TIP) was required...The TIP had to include a priority list of projects and a financial plan consistent with funding that could reasonably be expected to be available."

(from November/December 2002 *Public Roads*)

Solution: Design software to help MPOs manage multifaceted transportation planning process

To help MPOs and State departments of transportation (DOT) successfully meet these new challenges, TELUS was developed.

What is TELUS?
TELUS is a fully integrated information-management and decision-support system software that helps MPOs and State DOTs prepare annual TIPs and to carry out other responsibilities under the ISTEA reauthorization bill, the Transportation Equity Act for the 21st Century (TEA-21).

Information Management Features
- User customization.
- System security.
- Project scheduling.
- Project querying.
- Geographic information systems interface.
- Preformatted reports.
- Project revision and funding tracking.

Decision Support Features
- Project scoring.
- Project interrelationships.
- Planning analysis.
- Economic impacts (input-output model).
- Land-use model.

Successful Applications: Recent TELUS developments

Desktop TELUS 3.0 was released in May 2003; more than 50 MPOs have installed it and are using the system. In addition, several State DOTs are considering the system for potential use. New features include an input-output model, which allows users to estimate and display the associated job, income, and fiscal impacts of selected projects. Impacts are displayed with sector specificity, across the TIP's 5-year planning horizon, and against a background of projected overall jobs, incomes, and tax revenues.

Web TELUS 1.0, an Internet-enabled system, also has been released. This system parallels the desktop system but includes the advantages of a Web-based environment. The system is developed completely in Java™ and can be customized to meet an agency's requirements. Web TELUS 1.0 connects to existing data sources at the State DOT or MPO. It reduces data conversion when sharing information between State DOTs and MPOs, helps keep information current, facilitates standardization between MPOs, automates report generation (TIP and State TIP), and provides a user-friendly interface. By centralizing the location of the TELUS infrastructure at the State level, the maintenance costs for the MPO are reduced. The Web-based system has extensive security features, which act like firewalls to protect data, and it authenticates users and controls access based on the role of the user.

Benefits

- Provides free-of-charge, state-of-the-art TIP management software and technical assistance for MPOs and State DOTs.
- Customizes features for each user.
- Simplifies data management and reduces costs.

Additional Resources

Visit the Web TELUS 1.0 demonstration site at **www.telus-national.org** to learn more about the software.

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