



President's Message: The SmartWay to Deal with Fiscal Constraints

Ken Voigt
President, Wisconsin ITS Alliance



As everyone is aware, our state transportation budget is on hard times with budget shortfalls. These hard times are even greater for those of us responsible for the operation and safety of Wisconsin's transportation system. 'To do more with less' when already pressed to the limits on staff reductions and maintenance budget constraints is not easily accomplished.

Additionally important is the need to plan for future SmartWay deployments. Normally when fiscal times are tight it is appropriate to plan for the future when fiscal conditions will change. We need to not only educate our leaders on the benefits of technology but to also start planning, in a collective manner with all the shareholders, in operating our transportation system. Public safety, maintenance, and operators have to identify problems, needs, and system improvements. These improvements can have a synergistic benefit for our system users if done in a

well planned and coordinated manner. The time is now to start laying the seeds for Smartway planning and coordination.

The ITS Alliance is available to help with your efforts in both of these areas of education and planning.

•Use our website as a resource with its many links to ITS information.

•Use our meetings to discuss your needs and share information on operations and planning.

•Future newsletters will focus on these issues as we prepare to weather the storm of fiscal constraints.

•Please contact us with any suggestions or areas where the Alliance can help.

•See the online version of Intelligent Transportation System Benefits and Costs: 2003 Update, available at www.itsdocs.fhwa.dot.gov//jpodocs/repts_te//13772.html.

We are in a unique situation with the broad group of Alliance member stakeholders, who collectively can coordinate to educate, and plan to improve the future operation of our state's transportation system. ■

The fact that the need for operational funding has been neglected by most elected officials when intelligent technology is available to serve that need is extremely distressing. The deployment of SmartWay technology can help to efficiently 'do more with less' to manage the operation and safety of our transportation system. It has been shown that in Wisconsin and nationally, SmartWay applications have tremendous benefits in increasing system reliability, reducing travel delays and crashes, and maximizing system capacity in a cost effective manner.

During fiscal constraint times like these it is up to individuals and associations like ours to be proactive in educating decision makers on the benefits of SmartWay technology for law enforcement, emergency responders, trucking, transit, tourism, and the traveling public. Check out the SmartWays website for information on the benefits of using technology to operate our system. It's up to you to make a difference and inform decision makers on a win-win deal for future elections.

"The time is now to start laying the seeds for SmartWay planning and coordination."

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UWM Establishes Center for Advanced Spatial Information Research (CASIR)

Dr. Zhong-Ren Peng
University of Wisconsin - Milwaukee



The Center for Advanced Spatial Information Research (CASIR) at the University of Wisconsin-Milwaukee (UWM) was founded in March 2003 to

further applied and theoretical research in geospatial information sciences and related technologies. CASIR brings together leading researchers in geospatial sciences from the disciplines of geography, urban planning, information studies, environmental science, and engineering. The center initiates, organizes, and facilitates advanced research in spatial information and technologies.

Eighty percent of all data are related with a location and thus have a spatial component. The Center for Advanced Spatial Information Research is dedicated to research on theories, methods and technologies in the *collection, processing, and presentation* of this rich spatial information. Particularly, CASIR research is focused on advanced spatial technologies, including geographic information systems (GIS), Internet GIS, Remote Sensing, distributed geoprocessing and geocomputation, and interoperability research, as well as applications for GIS and Internet GIS in the fields of urban

planning, transportation, natural resources and environmental research. The Center initiates and facilitates collaborative research among center members and geospatial information scientists throughout the world; disseminates the results of research conducted to the research community as well as to the public and private sectors; and sponsors forums to discuss and advance the latest findings and technological innovations in

the field. The Center also works with the Wisconsin community and governmental agencies to address transportation, economical development, land use, and environmental issues.

The Center for Advanced Spatial Information Research is an inter-disciplinary research center which includes more than 20 affiliated researchers cross the UWM campus from such disciplines as Urban Planning, Geography, Economics, Civil Engineering, Computer Science, Electrical Engineering, Mathematics, and Information Studies, as well as other UWM research centers such as the Center for Urban Initiatives and Research, the Great Lakes Water Institute, the Center for Urban Transportation Studies, and the Institute for Survey & Policy Research.

Zhong-Ren Peng, associate professor of Urban Planning at the University of Wisconsin-Milwaukee, is the founder and the first director of CASIR. Dr. Peng has been very active in research in geospatial information science, Internet GIS technologies, transportation planning, and intelligent transportation systems. In addition to his cutting-edge research on Internet GIS, Dr. Peng is also active in transportation research. He

works closely with Professors Edward Beimborn and Alan Horowitz at the Center for Urban Transportation Studies, and with Mr. Dixon Nuber at the Center for Transportation Development and Education, on several ITS-related projects including on-line transit trip planning systems, real-time ground transportation information system kiosks for Milwaukee's Mitchell International Airport, Traffic Incident Management Enhancement evaluation, and Automatic Vehicle Location System assessment for the small and medium sized transit agencies in Wisconsin.

For more information about the Center for Advanced Spatial Information Research, please contact Dr. Zhong-Ren Peng at zpeng@uwm.edu. ■

“Eighty percent of all data are related with a location and thus have a spatial component.”

Want to join the ITS Alliance? See page 5 for the membership form and details.

UW-Madison and WisDOT Partner to Launch Wisconsin Traffic Operations and Safety (TOPS) Laboratory

Todd Szymkowski

Program Manager, Traffic Operations and Safety

In early summer 2003, the University of Wisconsin-Madison, in close coordination with the Wisconsin Department of Transportation (WisDOT), took initial steps to form a laboratory to provide engineering-oriented services related to traffic operations and safety in Wisconsin and throughout the Midwest. The co-managed Wisconsin Traffic Operations and Safety (TOPS) Laboratory represents an innovative service partnership that mutually benefits the UW System and WisDOT. Anticipated TOPS Laboratory service areas include:

- Traditional Traffic Operations and Safety Engineering and Technology / Services Development,
- Traffic Operations Support Services and Knowledge Management, and
- Transportation Operations Data Management.

While WisDOT serves as the primary, initial public partner in the TOPS Laboratory, several potential industry partners attended an Open House event on

August 18th and 19th. The meeting included several Wisconsin public agency transportation-related presentations covering traffic signals, signing and pavement marking, parking, work zone management, and traffic / incident management. A tour of the TOPS Laboratory facility and several one-on-one meetings with private sector companies to discuss partnering strategies were also part of the event. Over 50 people and 15 companies were represented at the event.

Initial UW-Madison academic staff associated with the formation of the TOPS Laboratory includes:

- Bin Ran, Ph.D. – TOPS Principal Investigator (PI),
- David Noyce, Ph.D., P.E. – TOPS Co-PI,
- Keith Knapp, Ph.D., P.E. – Project PI and
- Todd Szymkowski, P.E. – Program Manager.

For additional information on the TOPS Laboratory, please contact Todd Szymkowski at (608) 263-2684 or szymkowski@engr.wisc.edu. ■

9th Annual ITS Forum Scheduled for September 23 in Milwaukee

Lisa Kane

Transportation Planning Assistant, URS Corporation

For the past nine years, the Milwaukee area has hosted the ITS Forum, a one-day conference style event that brings together transportation professionals and affiliates from both the public and private sector including the areas of engineering, planning, law enforcement, and towing.

The ITS Forum 2003 theme is "Integrating Services," and will feature panel discussions about transportation security infrastructure, funding, public safety, transit, and much more. The Forum is a great opportunity for professionals and students to see new ITS technologies and hear about applications of existing technologies.

Continuing this year, the ITS Forum will feature an expanded vendor area. Over the past nine years, nearly 175 vendors from the United States, Canada, and abroad have provided information and demonstrations on state-of-the-art ITS products and

services. Also, event sponsorships have supported the ongoing success of the ITS Forum. Vendors and participants of the Forum have the opportunity to interact throughout the day, and discuss and demonstrate ITS related tools first hand.

This year, the Forum will be held at Marquette University's Alumni Memorial Union, in downtown Milwaukee. The registration fee is only \$40 for professionals and \$20 for students, and includes lunch, admission to all sessions, and admission to the open house following the Forum. The open house will take place at the Wisconsin Department of Transportation's Traffic Operations Center, where tours will be given. Pre-registration is required, and the deadline for registration is September 9, 2003. For more information, contact Lisa Kane at 414-227-2166, email itsforum2003@dot.state.wi.us, or log on to www.its-forum.info ■

The Vendor's Perspective: Communications and ITS

John Kugel
President, TAPCO

The basic task of all government employees is to do more with less. This cliché is gaining more intensity as governments routinely require agencies to maintain or even reduce annual budgets. How does one put together a plan for maintenance and operations with shrinking dollars? This appears to be the question that more and more directors of public works and city engineers are facing.

A Community's Communications Infrastructure

A review of the current communications infrastructure can have some rather large, long term cost savings and provide an increase in benefits to most communities. Most communities rely on local utilities to provide phone and local area network (LAN) communications equipment (such as a computer network). Just like electrical power, many utilities are often overlooked as a recurring expense that cannot be changed.

However, technology has now provided communication alternatives that a number of communities are utilizing. One alternative is a community-owned communications infrastructure involving the installation of fiber optic communication cable.

The switch is not without some rather exhaustive study and hard work. The process requires a crusader and a team facilitator. The process should involve all departments within the community and can benefit from the help of a qualified communication consultant.

How does this relate to ITS?

TAPCO has been involved in both the planning or "front side" and implementation or "back

side" of communications projects. On the back side, the single focus of most of these projects involves the primary phone and LAN needs of the community. (This is where the most cost savings are generated.) At this point, there is little consideration of other department needs within the community regarding communications.

When we get involved in the front side, we are able to offer several other, less obvious features that can be served by a fiber optic system. The following are just a few of the features that we have furnished to Wisconsin communities involving fiber optic cable installation:

1. Traffic Signal Interconnect/Count Stations and Central Signal Management Software Utilizing a Dedicated LAN

Benefits: better signal coordination, lightning immunity, shared signal database with maintenance, on-line data collection for signal retiming, and ease and efficiency in updating signal plans.

2. Video & Incident Detection/Surveillance System that allows fire/police/maintenance/engineering shared control and access of video.

Benefits: real time incident management, instant feedback to coordination changes, ease of adapting to temporary construction or events, and visual confirmation to changes in signal timing.

3. Security Access Control

Benefits: personnel and vehicle accountability; control building accessibility; control and monitor fuel depot, waste water treatment plant and other facilities; easily integrated with video surveillance.

4. Parking Guidance/Control to provide complete revenue and operation control at any office within the community.

Benefits: minimize travel congestion while searching for available parking, and provide online audit documentation for revenue generated through parking operations.

Contracting

The majority of communities have not
continued on page 5



City of Racine Traffic System Monitor

ITS America Update

Ken Voigt
President, Wisconsin ITS Alliance

The Wisconsin ITS Alliance is in the process of becoming a chapter of ITS America. A major purpose of becoming a separate ITS America Chapter is to increase the Alliance's ability to bring national resources and information to Wisconsin.

We have been working with ITS America staff, and the appropriate forms are being filed as this newsletter goes to press. Members have also communicated with the ITS Midwest Board of Directors and are working cooperatively to make this happen. We have contacted ITS Minnesota to share liaison members for increased interstate coordination between Minnesota, Wisconsin, and Illinois on chapter activities, resources, and information sharing. Along with our partnerships with AAA and the Wisconsin Motor Carriers Association, the Alliance will continue to grow to meet the transportation operation needs of Wisconsin.

These changes will not change the Alliance's goals or membership, but instead enhance its focus on our

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built fiber optic communications system through a single construction contract. Rather, they have designed the master plan showing the layout of the complete communication system and then, through their road reconstruction contracts, have built each segment of the system as the roads are rebuilt.

Some cities have built a communication system using the need for enhanced traffic signal coordination as justification. In some cases, it was only after the system was built that the community realized greater potential to support additional need.

--- ✂ Detach and return with payment ✂ ---

Membership Form

Name/Title: _____

Organization Name: _____

Address: _____

Telephone Number: _____ Fax Number: _____

Email Address: _____

Please circle one of the following:

Agency or Corporate Membership - \$100 (incl. up to 5 individuals) Individual Membership - \$25

state and increase our credibility with state legislatures and industry. Wisconsin will remain actively involved in the Gary-Chicago-Milwaukee Corridor coalition and ITS Midwest to improve interstate travel and information sharing through this vital transportation link. This will include supporting the need for funding of the corridor's technology advancements.

As a new chapter of ITS America, we have established the following standing committees:

- Membership
- Research
- Student Chapters
- Speakers Bureau
- Programs/ Annual Meeting
- Public Relations

Your involvement on these committees is needed for the Alliance to have an impact on transportation operations and safety in Wisconsin. Please contact Ken Voigt, Alliance President, at kvoigt@hntb.com to get involved. ■

The future demands on your community will require more integration of systems. This integration will minimize staffing needs. Homeland security will also require a much higher need for additional security of the so called "soft" targets within communities. The public will demand more information on a "real-time" basis. All of these demands will hinge on your community's communications infrastructure. ■



Video-Fiber Rack to Support Communication

To join the Alliance, please fill out the membership form and send with payment to:

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