BOOSTING INTELLIGENCE

An IPI task force takes on intelligent transportation systems and how they might work with parking, and members want your input.

By Jason M. Jones

A s I write this, I'm heading off to the New York State Parking Association conference to see many old friends and hopefully meet a few new ones. While beginning my nearly six-hour train ride, I wonder: Does the person next to me know what intelligent transportation systems (ITS) are?

I would imagine the smartphone he just used to view our estimated time of arrival is connected to an ITS. How about when he departs the train and then uses a bus or personal vehicle to get to his next destination? Will there be signage in the bus shelter indicating how long (in real time) he'll wait until the next bus arrives? Maybe he can use that smartphone again to see the bus on a GPS tracker—hard-copy schedules are becoming harder and harder to find as fewer people use them and demand lessens. What about variable message signs (VMS) along the roadways that specify it may take 30 to 40 minutes to get home from his current location due to an accident or roadwork along the way?

These are just a few examples of the ways ITS affects our everyday lives; they also detail the greatest challenge faced by IPI's ITS Task Force. How do we convey our message, not just to the parking industry alone, but to all sectors of ITS users? This question and the challenge it presents will help guide us down an informative ITS path, which will eventually include a case study that highlights a transportation management center. ITS itself is pretty new, and the task force is only a few years old. So who are we, and what is our message anyway?

Transportation management centers are one example of ITS in action.

The Task Force

Formed in late 2012 the IPI-ITS Task Force was charged with discussing how ITS and parking can work in conjunction with one another while improving the driver experience. The task force was charged with considering many opportunities to collaborate between these two systems. Co-chaired by Richard Easley, CAPP, and Tracey Bruch, CAPP, they received assistance from nearly 20 committee members. During this time frame, the task force generally had quarterly conference calls, developed an informative presentation, and welcomed the opportunity to meet face-to-face during many events, with productive dialogue and future planning being gained.

Fast forward to 2015, and the second version of this task force has recently welcomed several new volunteer members. Co-chairs are now Ken Smith, City of Omaha, and me. Richard and Tracey were eager to continue their involvement and decided to stay on the task force, much to Ken's and my delight.

The June 2015 issue of *The Parking Professional* referenced the many volunteer committees within IPI and what they were working on. Obviously, my first question for the ITS Task Force at our meeting in Las Vegas that month was "where's the wave pool?" All joking aside, my real question was "where is the ITS Parking Task Force?" It was clear our work was far from over (or really even started). Based on that meeting and our first conference call afterward with new members, it was decided that we needed to further highlight our focus, which is currently broken down to three main objectives:

- Our first main goal is to educate parking professionals about ITS through state and regional parking associations and related organizations, using participation, presentations, forums, and articles we'll write and publish within and outside of the industry. This has always been a main goal of the task force, as we offered our presentation at IPI's 2014 and 2015 conferences; state & regional parking association conferences including New York; and different opportunities, such as a local Clean Cities Program run through the Department of Energy.
- Our second emphasis is to educate non-parking professionals and those beyond the industry about parking and ITS and how they intersect.
- Lastly, our third focus is greater collaboration and coordination with ITS organizations, including the Intelligent Transportation Society of America, to encourage visibility and awareness of the parking industry and the connections between parking technology, planning, and ITS. Conversely, with new task force members come new ideas, so as this article is being written, the focus is changing, which is what a committee should do, right? Develop a base message/purpose, critique/strengthen that message/purpose, deliver that message/purpose, and update/refine that message/purpose over time.

(Article break: That guy sitting next to me just got off the train in Syracuse, N.Y., and called his friend to pick him up. It's impossible not to listen these days as everyone seems to talk openly. The friend indicated he was parked in a loading/unloading zone, even though the train had yet to arrive. Classic, right? Parking is an afterthought for some and lifeline for others. OK, back on track, literally.)

ITS in Action

One of the ways ITS is illustrated is at a traffic or transportation management center (TMC). Having served at a TMC facility for a moderate period of my career, I've been exposed to the inner workings and how this type of facility really helps the public, specifically those in transit. In my area of Albany, N.Y., the New

York State Police and department of transportation (DOT) established a TMC back in 1999, from which to operate an advanced system to monitor, evaluate, and respond to roadway incidents on the most active highways in the area. The TMC allows state troopers, DOT Highway Emergency Local Patrol (HELP) trucks, and other emergency personnel to respond rapidly to accident locations and other highway issues. DOT maintenance crews are routinely dispatched to help restore traffic flow to normal operating conditions during these events.

The TMC was viewed so favorably after introduction that the first facility quickly became outdated and a new TMC was constructed. This new facility was completed in conjunction with a new state police headquarters in 2012.

To fully understand what most TMC personnel specifically do, here is a brief listing:

- Organize responses to emergencies and incidents through observation of strategically placed cameras and computer-linked sensors implanted in the roadways.
- Answer calls from drivers needing fuel, help changing a tire, directions, etc.
- Distribute information about highway conditions and traffic to public safety agencies, traffic news outlets, and public transit personnel.
- Alert drivers to highway incidents and recommend alternate routes using variable message signs (VMS) that are situated along multiple highways, highway advisory radios (HAR), and websites such as 511ny.org.

Before walking into the TMC, I had no idea these people were helping me even though their work was on frequent display. Whether it was VMS, CCTV, HELP trucks, traveler websites with real-time information, television, or text alerts, the information provided is often timely and accurate. But it can be puzzling as well.

Sometimes these notification mechanisms indicate that there is is an accident ahead but drivers find nothing in the roadway when they make it there. So what happens then? Lots of drivers decide that next time they won't believe those notifications and just proceed on their scheduled path. We in transportation know that's not the best decision.

One of the main objectives of a TMC is to divert traffic away from a congested area. Although it is helpful to alert a motorist already stuck in traffic that there is an accident ahead in the right lane, it is equally—if not more—important to alert the motorist who is three to 20 miles away about what's coming ahead. This allows the driver to have a chance to safely divert his or her path of travel while not adding to the already-congested area.

What about residual delays? We know that for every minute a lane is blocked, three minutes of congestion builds. There is lots to understand and a great deal of information to decipher, but how do we connect parking?

Inviting Parking to the Party

Outside of the times VMS were activated for various events, parking was not initially primarily part of the TMC discussion. One of the IPI task force's traditional comments during presentations is that although it is great that these systems can tell you it will take 20 to 30 minutes to get to your destination, what they are lacking is information that it will take another 15 to 20 minutes to find a place to park once you arrive.

During the past few years, we have become more adept at obtaining and harnessing this information, but a monumental gap still exists between ITS and parking. How do we close that gap? That is what task force members are currently working on. The above TMC discussion highlights our challenge.

All that said, TMCs are just one small sample of what the ITS Parking Task Force is focused on. We are very interested in commercial vehicle operations, such as weight-in-motion screening; advanced public transportation systems, which are commonly displayed in ETA signage; and advanced vehicle control systems, which are seen in vehicle-to-vehicle and highway infrastructure communications.

IPI's ITS Parking Task Force holds monthly conference calls, has renewed its outreach campaign, will be presenting at various events and places of business nationwide, and is working hard on delivering an updated message based on past feedback, current committee members, and industry advances. There may be tours planned in the future as well. I hope you are now interested enough to join us. Ⓟ
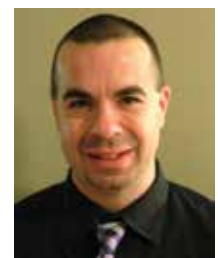
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