TRANSPORTATION FINANCE & ROAD USAGE CHARGING CONFERENCE

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PORTLAND, OR

THE BUSINESS OF MOBILITY

IBTTA
TOLLING. MOVING SMARTER.

As Congress struggles to restore the solvency of the federal Highway Trust Fund, states and localities are blazing new paths to generate sustainable funding for their vital transportation infrastructure. This conference explored innovative ways to fix America's broken transportation funding system.

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INTRODUCTION: IMMEDIACY AND POSSIBILITY

Meeting in Oregon, in the jurisdiction that introduced America's first state gas tax in 1919, and is now preparing to launch the country's first operational road usage charging (RUC) project, panelists repeatedly pointed to the urgent need to solve a deep highway funding crisis. The federal Highway Trust Fund (HTF) is perennially on the verge of bankruptcy. Federal transportation revenue has lost much of its purchasing power since the gas tax was last increased in 1993. Fuel-efficient and alternate-fuel vehicles are further eroding the funding base for highway repairs, maintenance and expansion, and raising funding equity issues for drivers who own older, less efficient models. Even with the funding levels legislators have proposed, the Trust Fund would fall far short of the dollars required to clear an infrastructure deficit that has been decades in the making.

Against this backdrop, panelists and participants traced the evolution of tolling and explored the details and complexities of RUC as viable options for stabilizing highway funding. And underlying the discussion was an awareness of the rapid evolution of technology. "We're at a tipping point of redefining mobility for generations to come," said **James Madaffer**, Chair of the California Road Charge Technical Advisory Committee. "We see the technology life cycle moving at an exponential pace," with today's automobile soon to be replaced by devices that "are nothing but powerful computers and big batteries on wheels."

POLICY AND LEGISLATION: THE FEDERAL SCENE

The latest looming shortfall in the federal Highway Trust Fund was a continuing subtext for panelists and participants.

"This is a critical time for transportation funding, finance and policy," said IBTTA Executive Director and CEO **Patrick Jones**. "America is struggling to find the resources and political will to maintain and rebuild our vital transportation infrastructure." With much of the interstate highway system in need of major repair and reconstruction, and urban traffic congestion sapping the country's energy and economic vitality, "we need a sea change in thinking."

Rep. Earl Blumenauer (OR-3) invoked a 100-second video by ex-U.S. president Ronald Reagan to make the case for adequate transportation funding.

"The gas tax is no longer a good proxy for road usage," Blumenauer said. With startling improvements in vehicle technology, "we've shattered any direct connection between gallons of fuel consumed and road usage benefit. That is in part why we face a Highway Trust Fund that is technically bankrupt, and cannot meet our needs."

In another era, when "infrastructure was not partisan and intensely political," he said Portland used federal funds to build a modern, multi-modal transportation system that could "coax more value out of existing asphalt." Now, proposed budget cuts could set up a competition among stakeholders that would be a "recipe for political and financial gridlock, and for less effective transportation."

Blumenauer pointed to an ominous milestone for Portland: When the city opens the world's largest non-automobile bridge later this year, "it will mark the first time in over half a century that our community has no major federal transportation project in the pipeline. No road, no bridge, no streetcar, no light rail. And it's a situation more and more people are going to be facing unless we get our act together."

While Blumenauer has introduced legislation to raise the federal gas tax, with few in Congress joining him, 98 percent of state legislators who supported gas tax increases were re-elected in 2014. But a gas tax alone won't solve the problem. Road usage charging can "transform transportation in this country, because the same technology that will enable us to keep track of how far people travel, not where people travel, will enable us to make the driving experience more enjoyable for the motorist and more effective for people who care about congestion."

He urged participants to call out elected officials who refuse to address the highway funding crisis, calling it "political malpractice" to postpone a long-term funding bill.

Sarah Puro, Principal Analyst at the U.S. Congressional Budget Office, traced the decline of the HTF, noting that the federal share of transportation funding represents a "very small slice of the pie. About one-quarter is spent by the federal government, and three-quarters is by state and local governments. So when funding is being fought over at the federal level, we're fighting, like my children, over a small piece of pie." That division of financial responsibility points to the opportunity to introduce tolling and road usage charging as alternative funding mechanisms.

With no change in estimated receipts for 2016, any funding the HTF takes in this year will be required to meet its past obligations, Puro explained. "That means that, when you put your credit card down for loan payments, all of your income will be going to meet obligations that have already been promised." It would take three years of funding to meet all past obligations under the Highway Trust Fund, she said, and that calculation helps explain the construction delays that have taken place.

Maria Matesanz, Senior Vice President, Global Project Finance and Infrastructure Group, with Moody's Investors Service, said she welcomed "innovative, forward-thinking discussion of the next generation of revenue sources that might be available to finance infrastructure." But "road usage charging is complicated," she added. "The more I learn about it, the pilot testing, the implementation schedules, the phasing out of the gas tax to phase in a potential RUC—it's commendable and forward-thinking, but the devil is in the details."

At the same time, Matesanz said it's "pretty dramatic" that the U.S. hasn't increased its gas tax in nearly a quarter-century. "Already this year, about $800 million in projects in four states have been cancelled or deferred" due to uncertainty over highway reauthorization, and another $18 billion in investment in nine states is in question. "We're at the point where all solutions have to be on the table," and "RUC is a very interesting, dynamic, forward-thinking approach to what happens when you get this erosion in fuel taxes."

A participant noted that pro-active infrastructure investment delivers the second-highest return on investment of any federal expenditure, with a ratio of 2.1:1 over 50 years. Only basic scientific research scores higher.

A couple of panelists traced the evolution of transportation policy mandates since the election of the new European Parliament May 2014. There is considerable interest in promoting user-pay and polluter-pay principles, and a new road usage charging policy will be in place in 2016. The new legislative package for the second half of the decade includes two new elements: inclusion of all vehicle types in congestion charging, and a closer connection between road charging and interoperability while the Regional European Electronic Toll Service (REETS) takes shape.

RUC LEADERSHIP: THE OREGON STORY

In large part, participants gathered in Portland to celebrate and learn about Oregon's trailblazing leadership with road usage charging. **Tammy Baney**, Chair of the Oregon Transportation Commission, explained the deep infrastructure challenges behind the state's search for innovative funding options: bridges that "should be forced into mandatory retirement" if there were funds to replace them, pavement "literally turning to gravel before our eyes," deteriorating culverts, and the prospect of losing $94 billion and a significant number of jobs by 2035 due to higher transportation costs.

Oregonians used less gas in 2013 than they did in 1995, even though the population had grown 25 percent, and “that’s a recipe for disaster,” she said.

People tend to think of hybrid cars when they talk about fuel efficiency, but Baney said heavy trucks like the Ford F-150 have had an even greater impact, with performance improvements from 10 miles per gallon (mpg) in 1970 to 25 mpg in 2025. The change is consistent with the need to improve air quality and drastically reduce greenhouse gas emissions, but Baney and other panelists noted that the fuel tax becomes less equitable as fuel efficiency improves: since wealthier drivers tend to drive late-model vehicles, the burden of the gas tax falls on highway users who are least able to pay.

“When we think about transportation, we don’t think about the lives of those we’re serving,” Baney said. “We typically talk jobs, but if we don’t talk about transportation infrastructure at the same time, we will see our communities start to disintegrate.”

Jim Whitty, Manager of the Oregon DOT’s Office of Innovative Partnerships and Alternative Funding, gave two presentations that captured the evolution of Oregon’s Road Usage Charging operational program. State Bill 810 directs ODOT to implement a 1.5¢-per-mile road usage charge with 5,000 volunteer light duty vehicle drivers, with a start date no later than July 1, 2015. The operational program will run alongside a weight distance tax for heavy vehicles that dates back more than 70 years.

Key issues facing RUC include privacy, interoperability, administration costs, transition issues and equity by income level, geography and vehicle type. Whitty cited the formal objective of the Oregon operational program: to “create a sustainable road usage charge market that is simple and easy for payers, flexible and encourages evolution of mileage reporting technologies and business systems into effective, affordable, convenient and attractive options for the motoring public.”

The system is technology agnostic, featuring an open architecture and offering motorists a choice of RUC methods, he explained. The three private sector providers in the pilot “will be able to compete on multiple levels, one of which will be technology,” and their systems will evolve as the pilot progresses.

“There is no ODOT technology,” Whitty stressed. “ODOT is not choosing the technology. ODOT is certifying the technology offered by the marketplace.”

Users will be able to choose between public and private sector account management, he added. ODOT’s system “will be rather boring,” with no GPS capacity. Private account managers will have to follow system rules, accept any volunteer and retain their data—but they’ll be allowed to offer value-added services, use GPS, and “engage with the motorist more as a customer.”

A couple of panelists gave detailed presentations on Oregonians’ views and perceptions on road usage charging. Polls show that “you do have the public support to elevate this issue,” said **Su Midghall**, President and Principal of DHM Research in Portland, but “you need to talk about how urgent it is right now.” The starting point for the conversation “is taking care of the investment they’ve already put money into,” she added. “If we don’t talk about maintenance right away, they’re going to assume that any funding is for new roads, highways and bridges.”

Midghall said messaging will have to shape opinion across urban and rural populations and five different generations, each with different attitudes to highways and driving, and each of which will respond best to messengers who look like them.

“It’s not just a policy change,” said **Michelle Godfrey**, Public Information Officer with the Oregon Department of Transportation. “It’s a social change. With per-mile charges, people now have a stronger connection to paying for the roads,” and how Oregonians see that change “depends on whether they see the power as empowerment or burden.”

EVOLVING EXPECTATIONS FOR TOLLING

Several panelists traced the evolution of tolling from "a financing mechanism, frankly, of last resort" to a successful, nuanced method of matching the charges users pay to the mobility services they receive. For decades, the assumption was that tolls should be eliminated once initial construction costs were paid. But "just like the mortgage on your house, you still need money to maintain the road," said session moderator and independent management consultant **Susan Buse**. "So the idea of taking the toll off the road when it's paid for has now been challenged."

Over time, tolls became so effective at building up cash reserves that "those reserves became a target for political criticisms and raids," she added. More recently, user financing has been seen as a tool to modify driver behaviors, combat highway congestion or improve air quality. But few users have a clear picture of what they pay for their roads: "Ask the average homeowner what they paid in real estate taxes and they can tell you almost down to the penny," she said. "Ask the average vehicle owner what they paid in gas tax and they don't even know what they paid on their last fill-up."

Panelists described tolling in their own jurisdictions as an economic engine, a draw for investment and a way to meet customer commitments for service quality, travel time and reliability—whether they drive a toll road or use transit along the same urban corridor. "If it helps improve the flow of traffic, it's not diversion," said panelist **Samuel Johnson**, Chief Toll Operations Officer with the Transportation Corridor Agencies.

But with no expectation of significant new revenue over the next few years, panelists and participants expressed interest in getting more out of the dollars they spend. "The universal strategy is to figure out what to do about revenue, and what to do with the revenue you're going to get," said session moderator **Adrian Moore**, Vice President, Policy with the Reason Foundation. Panelists explored several strategies for getting more bang for their buck, including refunding bonds when the time is right, shifting to longer-range financial plans, maximizing operational efficiencies, pursuing uncollected tolls and making best use of the torrent of data available to tolling agencies.

RUC AND TOLLING: TWO METHODS, ONE PURPOSE

Much of the discussion during the conference centered on the differences and synergies between tolling and road usage charging, with a couple of panelists suggesting there is little to distinguish all-electronic tolling from RUC.

"A simplistic answer to that question is that we charge a toll based on a mile," said Tim Stewart, Executive Director of the Oklahoma Turnpike Authority. "We spread tolls throughout our network, some of them more profitable than others. So it's not pure and perfect in its application, just like RUC will not be pure and perfect."

Jack Opiola, Managing Partner and President of D'Artagnan Consulting, said tolling and RUC work together because they both address the same basic issue. "There's a value or a cost for driving on any road," he said. "If I'm paying a toll, I'm also paying a road charge every mile. If I drive off your toll road and take a 30-mile trip paying 1.5¢-per-mile, it's no longer a question of whether I'm on a toll road or a free road, because every road has a price…So that builds support for tolling, too."

A participant suggested that concerns over privacy and public acceptability are driving RUC toward less technical solutions, like annual odometer readings, that will make it more difficult to align the two funding approaches through technology. Others warned that a more limited RUC would do nothing more than replace gas tax revenue, without bringing in the added income the system so desperately needs. The answer, the participant said, is closer communication. "The toll industry needs to get onboard with the RUC community, and the RUC community needs to consider broader applications" that would position RUC as a demand management tool in congested corridors.

IBTTA President **Javier Rodriguez**, Executive Director of the Miami-Dade Expressway Authority, responded that he saw no conflict, adding that he'd be happy to have customers pay a single road usage charge each year rather than paying a monthly video toll bill. "If I didn't have to send out a video toll, I'd be able to sleep at night," he said. "We need to sit at the table together, and it will evolve."

Norma Ortega, CFO of the California Department of Transportation, traced the development of the Western Road Usage Charge Consortium (WRUCC), noting that 12 U.S. states have already joined and another six are eligible to do so. Membership grew quickly after the consortium formed because so many states were considering RUC studies or pilots. "It makes sense to join together and talk about some of these common goals," particularly as states strive to gain public acceptance for RUC.

The work is crucial, Ortega said, because the federal government is waiting to see what plays out in the states. The WRUCC's research agenda includes interjurisdictional issues and interoperability, a critical review of Oregon's road usage charging program, public communications coordination among state departments of transportation, RUC data gaps, privacy and enforcement issues and the effects of road usage charging on rural residents.

Participants heard from two states that are actively exploring RUC, both driven by the same perfect storm of circumstances: falling gas tax revenues, fuel-efficient and (soon) autonomous vehicles, market demand and a strong interest in environmental protection. Washington State established a 25-member steering committee, with representation from all major stakeholder groups, to assess whether RUC merits further exploration and recommend next steps. The overarching goal is to develop a sustainable revenue source for transportation—and with RUC, that means addressing issues like privacy, equity, user options, data security and interoperability.

"They don't all have to be advocates," **Reema Griffith**, Executive Director of the Washington State Transportation Commission, said of the steering group. "We're not all on the same page," but the value of a diverse steering committee is that "they're getting informed alongside us."

So far, the group has come up with four operational concepts for review: a flat fee per year, an odometer charge, an automated distance charge and a smart phone app. Research so far indicates that a government-run RUC system would carry higher collection costs than a gas tax on light duty vehicles, but the comparison could shift with private sector management and a higher number of users.

James Madaffer pointed out that state highway revenues of $10.3 billion in California only deliver about $4.6 billion for highway maintenance, rehabilitation and operations, "and as we transition away from the gas tax, that's going to get worse and worse." In the search for long-term solutions, the state will launch a RUC pilot program by January 2017, with recommendations to follow by June 2018.

Keith Mortimer, Founder and Director of Wyeval Consulting in Hereford, United Kingdom, described the development of RUC in Europe from the perspective of technology, taxonomy, taxation and trends. Relevant policy dates back to two European Union directives in 1999, and about a dozen of the 28 EU countries are now the most active in RUC development. The most recent directive, in 2011, focused on eliminating discriminatory charges, enshrining user-pay and polluter-pay principles, addressing infrastructure needs for larger vehicles, encouraging distance-based electronic toll collection and sorting out interoperability issues that have challenged the continent for the past decade.

Several panelists discussed emerging strategies to meet project funding and cash flow requirements and combine multiple sources of revenue, often including tolling and potentially extending to RUC. "Tolling is being combined with multiple funding sources to get projects built," said session moderator **Tom Boast**, Principal of THB Advisory LLC in Brooklyn, NY. Specific presentations focused on the U.S. Transportation Infrastructure Finance and Innovation Act (TIFIA), and on the steps state departments of transportation have taken to combine multiple funding sources and develop complex but workable system plans to earn support from legislators and the general public.

Amy Potter, CFO of the Transportation Corridor Agencies, stressed the need for close coordination as RUC is added to the highway finance and funding toolbox. "There's no one size that fits all for a financing formula," she said. "Each project requires a unique collaboration of public and private investors and stakeholders," so "partnerships have evolved, and I believe they will continue to evolve." Emerging options include local transportation reinvestment zones (TRZs), where incremental property tax increases are collected to finance projects within the zone, and regional Development Impact Fees (DIFs). Another panelist went through the 12 categories of funding his state receives from federal, state and local highway funds and a variety of innovative sources, including tolling.

Kevin Hoeflich, Toll Market Practice Leader with HNTB Corporation, reported on the range of non-toll revenue options that tolling agencies have considered to diversify revenue streams and help fund ongoing operations. The possibilities include property sales and leases, advertising and logo signs, cell tower and fiber optic leases, service plaza amenities and truck parking management as a technology-enabled approach to boosting efficiency while offering greater convenience to freight operators. Hoeflich said most agencies are leveraging the space on their right-of-ways to generate lease revenue from cell towers, rail lines or other uses. Advertising at toll plazas and service plazas was the second-most common revenue source, and some agencies were considering naming rights for service plazas.

FINANCING THE SYSTEM: MANAGEMENT IN AN AGE OF COMPLEXITY

As the highway infrastructure crisis deepens and financing mechanisms become more diverse and complex, tolling agencies face a wider range of financial management issues. In some jurisdictions, toll revenue diversion may be the most contentious of all.

"If the goal is to move people and goods and revenues are collected on your system, is it just about pavement and steel?" asked IBTTA President **Javier Rodriguez**, Executive Director of the Miami-Dade Expressway Authority. "There's a wide spectrum of what people believe," but "the bottom line is that the consumer is looking for solutions…From my perspective, the rewards outweigh the risks all the time if you structure it the right way," since the alternative to repairing interchanges, widening highways, or integrating bus rapid transit is to let businesses fail if they can't deliver their products.

Andy Rountree, CFO and Vice President of Finance with the Metropolitan Washington Airports Authority, said his agency took responsibility for running the Dulles Toll Road in 2008 and is now co-funding a major transit expansion. "It really is an integrated transportation corridor," he said. "And at the end of that rail will be Dulles International Airport, which also ties in from a transportation standpoint."

In its management agreement with the Virginia Department of Transportation, MWAA "wanted to make sure there was a clear segregation of toll revenues between what we're doing on the tolling side and what we do on the airport side," Rountree stressed. As a result, "it really is a seamless operation. It's a transportation corridor, it's a commuter corridor and it serves the same people. The revenues stay in the corridor and get to work in the corridor."

Brian Mayhew, CFO of California's Bay Area Toll Authority, described a complex regional structure that uses toll revenue to fund projects that benefit users in seven counties. A succession of toll increases dating back to 1998 funded more than $15 billion in capital projects and seismic improvements, 90 percent of which are now complete.

The work isn't considered a diversion if it's used in the corridor where the money was collected. "If you tried to move it into the Central Valley or South San Jose, that's not okay," he said. "That would take money away from its core purpose, and we have statutory responsibility for every dollar we collect." But between $12 billion for the seismic program and $1 billion for bridge improvements, "there's not a lot of room to devote money anywhere else."

Saavan Gatfield, Senior Director, Transportation Infrastructure at Fitch Ratings, shared a rating agency's perspective on diversions. "If revenue is being diverted to something that doesn't generate revenue, that's a cost obligation, and it comes out of cash flows," he said. "Our analysis focuses on how those reduced cash flows affect the agency's operating and debt profile."

Although diversions don't always affect debt service ratios, "they clearly have an impact on cash," he said. The impact of any one diversion depends on the scale and predictability of the obligation, he explained. But if a major diversion led to a significant toll rate increase, "you could be looking at some damage to the authority."

A panelist said it's essential for a CFO to understand and assess whether costs are reasonable, how procurement and project management schedules will unfold, what cash flows will realistically be required, and how those elements factor into an agency's long-term financial plan, without becoming deeply immersed in the granular details of a project.

The answers to many of those questions depend on traffic and revenue studies that have had to reflect changing user demographics, said **Ed Regan**, Senior Vice President at CDM Smith. Traffic volumes have shifted in recent years for a variety of reasons: baby boomers are driving less as they retire, members of the millennial generation are less inclined to own their own vehicles, and more potential drivers are telecommuting for work and making their purchases online. The latest data show some recovery in per capita driving rates, but it's too soon to say whether the increase will continue over time.

A panelist said road usage charging could be a viable funding alternative, but represents an added layer of complexity that could lead to impairments with existing bondholders. Depending on "how RUCs affect outstanding debt obligations which may have 20 or 30 years to mature," said **Maria Matesanz** of Moody's Investors Service, "it may be unfeasible to completely restructure."

TECHNOLOGY, PRIVACY AND RUC

Several panelists connected the dots between RUC and the GPS and connected or autonomous vehicle technologies that are already transforming the modern highway.

"So many of these things are happening faster than most people realize," said **James Madaffer**. The technology to enable RUC is available in today's vehicles, or soon will be: **Chris Carver**, Founder and President of ATG Risk Solutions in Seattle, said nine million personal and commercial vehicles already carry enough technology to support a state RUC pilot, and have amassed 277 billion miles of data.

Ben Miners, Vice President, Innovation at Intelligent Mechatronic Systems (IMS) in Waterloo, Ontario, envisioned a system that would integrate connected cars, roadside services, auto dealers and RUC to deliver a "simple, convenient, unified experience" for users. Over time, it may be possible and preferable to assess charges to the driver, rather than the vehicle. He said the development of the full technology platform would depend on a wide-ranging marketplace that brings together automakers, technology providers, insurers, dealerships and highway assistance companies, among others.

Emmanuel Grandserre, Senior Partner with 4icom in Paris, France, said the technology behind road usage charging is considered mature, but selecting the right option for a specific project can still be a challenge. He advised a system approach that reflects the potential for interoperability, the need for scalability, the enforcement objectives and other key performance indicators that will be specific to each road or jurisdiction. Miners said technology would enable RUC operators to "form the right partnerships with the right organizations to deliver the right services to the driver without duplicating bills or devices, and ultimately allow us to realize sustainable transportation that is safer and greener."

A participant questioned a business model that will require service providers to compete for "a fraction of thousands of accounts." A panelist replied that "the value is in the broader connected vehicle ecosystem," noting that customers will want to receive a wide mix of services from a single source.

Carver discussed the potential to bring the benefits of connected vehicles to the auto insurance marketplace and offer consumers the possibility of paying their insurance by the mile. "RUC isn't just a reset button on how to collect dollars," he said. It's also a way to get people thinking differently about the way they use their vehicles. "We need to encourage people to think differently about an open system, where insurance companies and people who benefit from data can share a common source of data."

A couple of speakers said RUC providers will never fully address the perceived risk of data breaches, though systems are already in place to minimize them. "People trade value for privacy all the time," said **Tim McGuckin**, consultant with Transport Systems Technology and Policy. A segment of the population may adopt RUC easily, due to age or ease with technology, while another segment may not. The difference may be generational. But it will ultimately be up to vendors to paint a picture of a market where privacy concerns are adequately addressed.

RUC: 'FAMILIARITY BREEDS ACCEPTABILITY'

Jack Opiola of D'Artagnan Consulting noted that public opposition to many transportation revenue options runs in the 70 percent to 80 percent range—and 30 percent of U.S. respondents oppose *all* revenue options. But those numbers change with experience. "Familiarity breeds acceptability," he said, and experience in Oregon and Washington State shows the importance of "explaining to the public where the problem is" and where RUC revenue will be spent.

"If you pull them into the problem and make their suggestions or recommendations a part of your study, you'll be a lot more successful," he said.

Factors shaping public response include personal attitudes and travel behaviors, as well as past experience with different transportation modes—users who think public transit is uncomfortable or inefficient won't support a plan that puts more buses on the road.

Norma Ortega of the California Department of Transportation pointed to two essential pieces of information to build public acceptance: What it costs to use the roads, and where RUC (or toll) revenue will be spent. She said regular reporting is critically important in building public and stakeholder support.

Other panelists discussed the emotional reactions and stages of acceptance that users go through in the shift from the gas tax to road usage charging. Their response will depend in large part on wider issues: a user who resents any tax or is worried about privacy will start out more skeptical about any form of user financing.

Asha Weinstein Agrawal, Director of the National Transportation Finance Center at California's Mineta Transportation Institute, reported on a five-year series of national opinion surveys that documented public support in the 20 percent range for a flat, 1¢-per-mile tax. Support for a variable tax based on a vehicle's pollution grew from about 33 percent in 2010 to about 43 percent in 2015. Support for both options was highest among Hispanics, Democrats, non-drivers, people who gave their local transit systems high marks and people who "believe government should make it a high priority to maintain and improve the transportation system." Agrawal advised participants not to pay too much attention to a single poll on a hypothetical RUC, acknowledging that basic public support is quite low. She also noted that attitudes could change if a mileage fee is designed carefully and explained well.

Public acceptance of RUC may also flow from the value-added services that are enabled by unleashing customer data and maximizing the use of onboard technology. **Nate Bryer**, Vice President, Innovation at Azuga, Inc. in Colorado Springs, CO said public concerns about privacy can be alleviated by showing people that they control who sees their data, and when. Once that hurdle is cleared, users want the technology available in the latest vehicles, even if they drive older models. The range of options includes accident and congestion alerts, roadside assistance, parking apps, driver scoring, vehicle health reports, recall information and a range of services designed for teen drivers.

CONCLUSION: LESSONS LEARNED AND THE ROAD AHEAD

A panel of participants closed the conference with the conclusions they'd drawn from two days of presentations and discussion. They observed that:

- Putting customers first means talking about what matters to them most. Highway agencies are necessarily concerned about finance, but "our customers want to hear about maintenance, and we should start there," one panelist said.
- Younger customers, in particular, are looking for a highway experience that is connected to their mobile devices, she said. "They don't want it to look like government. They want it to look like their favorite brands."
- For CFOs, "the question is how we raise the revenue we need to satisfy the transportation needs of municipalities, the state, and the country," another panelist said. The growing emphasis on transit is about maximizing the use of the available space, and "I don't see that as a diversion."
- Road usage charging is the long-term solution that will replace the gas tax, he added, but it will need a lot of focus and support to move to the mainstream.
- RUC offers a range of options, from a simple 1.5¢-per-mile charge through to GPS tracking and emissions charges. "It's really just a question of how we want to use it and how we use it effectively and efficiently," another panelist said.
- The best answer to privacy concerns surrounding RUC is to ask customers whether they carry a smart phone, he noted.
- A panelist pointed to the "gradual warming of the relationship" between tolling and RUC, affirming that "road usage charging is not a threat to the tolling industry. It's got a lot of potential positive impacts."
- Although the story is familiar, it's still striking to hear how bad the situation is with federal transportation funding. All the funds allocated to the Highway Trust Fund are already committed to existing work, so the system will see "money coming in without any funding for [new] projects."
- A panelist pointed to the tension between the simplicity of a basic road usage charge and the need for a more sophisticated system that does more than just replace gas tax revenues.