Mobility on Demand (MOD) set the stage for the ITS America Annual meeting in June, highlighting how today’s rapidly changing and growing transportation landscape of cities, DOTs, transit agencies, mobility and micro-mobility providers, data companies, financial and insurance services and many others are focused on how to deliver customer-focused, seamless mobility. This was followed by a series of sessions threaded through the week that highlighted how MOD not just builds on the backbone of ITS and infrastructure investment but is a larger vision of how an integrated network of safe, carefree and reliable transportation options can be available to all.
KEYNOTE INSIGHTS

Vince Valdes, Associate Administrator, Office of Research, Demonstration & Innovation, Federal Transit Administration, USDOT

- Focus has been to advance Mobility on Demand through partnerships and are in the next step of evolving innovative mobility
- FTA loves pilots (responding to earlier comments that the private sector does not love pilots)
- Best proof is in the pilots and each agency watches other agencies
- FTA is moving forward with another MOD Sandbox grant program, focused on innovation in MOD, automation in MOD and transit, and integrated fare payments
- Complete trips continue to be important to furthering the vision of transportation options

“BY EVEN OPTIMIZING A SMALL AMOUNT OF MONEY AS PART OF THE MOD SANDBOX, TRANSIT AGENCY AND PRIVATE PARTNER PILOTS HAVE DEMONSTRATED HOW TECHNOLOGY AND MOBILITY SERVICES CAN DELIVER BETTER CUSTOMER SERVICE, BUT ALSO FRANKLY HOW TO AVOID FUTURE INVESTMENTS IN TECHNOLOGY THAT DOESN’T WORK (OR HOW IT NEEDS TO BE EVOLVED).”

Phil Washington, CEO, LA Metro

- LA Metro has a roadmap for the future that is focused on expanding the menu of transportation options and opportunities for shared mobility
- LA is looking at increasing gridlock with growth and it is critical to expand on-demand services that focus on connection to transit, and are accessible for all travelers as well as affordable

- From partnerships with Via for on-demand first mile last mile service to a recent effort where the agency has awarded three teams to plan and design on-demand microtransit services, the focus is to improve customer experience and service level for existing riders and drive new customer acquisition
- In the case of the upcoming microtransit services, the private sector will be maintaining the vehicles, but existing LA Metro labor will be drivers
LA Metro and Congestion Pricing

We are pursuing a study to investigate the feasibility and framework for testing and implementing pricing strategies to reduce congestion while also genuinely engaging stakeholders in this study process to help develop widespread support for a pilot program.

As we look at congestion pricing, we plan to use the revenues to potentially make transit free for everyone, something we would consider in incremental steps for seniors, students, etc.

Additionally, studies are starting to come out to show that TNCs do add to congestion.

It doesn’t make sense to put a fee on TNCs while not addressing SOV driving, which makes up the bulk of traffic. Why should they benefit and enrich without also serving a broader public benefit?

There is a need to address these collectively and in lock step, which is why we are also studying the impacts of TNCs and micromobility in the region.

We need to understand what the positive and negative externalities are and how they impact our ability to deliver on our vision of mobility.

“The focus is on managing both demand and supply,” said Washington. “On the supply side we are focused on new microtransit options to improve the customer experience and have partnered with three teams to plan and design on-demand services. On the demand side, we are very serious about how we reduce our carbon footprint and single occupant vehicles. This is why we are launching a feasibility study to look at congestion pricing. But any program must be matched with very viable transit alternatives.”

Phil Washington, CEO, LA Metro
One of the key drivers changing the context in which government operates is “empowered citizen-consumers.” This new kind of citizen, brought about by the internet, is proactive, collaborative and aspires to contribute to a better society.

The net impact is that governments need to modify their approach from a more inward focus on processes, efficiency, cost saving, etc. to one that is more outward focused on citizens and their experience while interacting with specific services. In other words, focus on outcomes.

Forward-thinking governments have started thinking about and defining what they want citizens to experience while interacting with their services, looking for ways to identify the intersection of feasibility, desirability and viability in addressing citizen needs.

Where in the past, technology projects would have been focused on an objective of “what data do I have” and “what can I do with it” – generally in isolation from other applications – the new focus in smart transportation on data asks “what data do I need”, and “where and how do I source it.” We’re still in the “what data do I have” and “what can I do with it” stage in evolving MOD to reality.

Paige Tsai of Uber has stated that based on data obtained from Uber trips taken in Philadelphia and San Francisco, as much as 30% of Uber trips in a city can be to and from public transit stations. When Los Angeles’ Metro added 12 new stops and extended the existing Gold and Blue Lines, Uber pickups decreased at previous terminal stops and increased where the new terminals are located. Wouldn’t that be a great story to tell as MOD evolves.

The new paradigm is driven by an expectation that data will come from multiple internal and external sources – like weather, an external source for example on top of decision-making for traffic and transit operations.

It calls for embracing open data – both to ingest and to share – as a means of meeting citizen needs, and it has benefitted greatly from the deployment of sensors that can update and drive action in near real-time. Again, smart transportation is leading in this area, while we are all here to discuss getting to the same place with MOD.

The role of IoT in MOD cannot be understated. One of the technology drivers for citizen-driven solutions is a robust, reliable and secure IoT infrastructure combined with edge computing, where processing can occur entirely in the cloud, at the edge, or in both. But there remain questions:

- How do you scale IoT deployments at enterprise scale?
- How can an AV stop instantly if the decision has to be made in the data center?
- How can a connected truck and all its sensors go from Washington to Florida seamlessly?
- How do you balance the boundary between the citizen benefits that technology provides and privacy?
- How can this technology be used to create equity in providing Mobility on Demand services that enable everyone to use them?

The mobility discussion revolves not only around technology, but on the policies and standards that enable it.

THREE TAKEAWAYS:

1. MOD is advancing from vision to action. We should apply lessons from Smart Cities and Smart Transportation to accelerate adoption
2. Technology has reduced risk and cost barrier.
3. Keeping the informed citizen/traveler at the center of all solutions will help deliver long-term solutions.
FORUM INSIGHTS

THE BIGGEST ELEPHANT IN THE ROOM – SOLVING THE DATA SHARING PROBLEM

Robert Galvin, Chief Technology Officer, The Port Authority of New York & New Jersey, John Kwant, Global Director, Government Relations, Mobility and Advanced Technologies, Ford Motor Company, Jeff Marootian, Director, District Department of Transportation and Jan Whittington, Director, Urban Infrastructure Lab, University of Washington Transportation Data Collaborative engaged attendees in a dynamic discussion about the challenges of data sharing.

Kwant observed that Ford is learning in the early days of this journey. “There will need to be some heavy lifting to move forward with data sharing while still preserving privacy.”

Whittington shared that data standards don’t necessarily do anything to protect privacy and that sanitized “aggregated data” isn’t good enough. Over the last year, UW has been developing a system that creates a new specialized data set that provides trip level information while protecting privacy.

Marootian and Galvin also highlighted the challenges the public sector has with data. “In many ways, we have more data that we can use. I like to call this digital waste,” Galvin observed. “Don’t collect if you aren’t going to use it.” Marootian added this requires public agencies to better define the use cases they really need and noted DDOT has partnered with third-party data aggregators to start collecting mobility and trip data and how it would be used by the DOT.

ROUND TABLE DISCUSSION:

- What type of data do we really need to optimize mobility? Where is it different and where is it the same for the public and private sectors?
  - The data we need is, “where do people want or need to go but cannot?”
  - Location of all modes, public vehicles, pricing, routes if applicable, private citizens (should they be included?) services by companies? (should they be included?)

- Who should “own” the data? Public sector, private entity or the customer? If it is the customer, how do we approach data sharing for the public good and the private marketplace?
  - There is a difference between privacy and owning data. Privacy is about a responsibility to the customer. We should not debate data ownership but instead focus on data access and protection.

- Is there a right approach to data sharing? There are several models right now, have we got it figured out?
  - Public entities are not trusted any more than private entities.