

National Dialogue on Highway Automation Readout Seattle, Washington August 1-2, 2018

SEATTLE - The Federal Highway Administration (FHWA) held a "National Dialogue on Highway Automation" session in Seattle this week, the third in a series of national workshops on highway automation. The sessions are designed to facilitate a dialogue and information sharing between the federal government and its partners. More than 160 participants attended, including digital and high-tech industry leaders, along with stakeholders involved in the design, construction, operation and maintenance of U.S. roads





The meeting was kicked off by **FHWA Associate Administrator for Highway Policy and External Affairs Mala Parker**, who stressed that the conversation in Seattle would explore the role of digital infrastructure and data in an AV world focused on the readiness of highways to accommodate these new technologies. Seattle was the perfect place to discuss this topic. It's the city where technology *meets* infrastructure, she said. Seattle is home to at least two signature projects that are considered engineering marvels – the SR520 Bridge is the longest floating bridge in the world, and the Alaskan Way Viaduct has, as its centerpiece, one of the largest-diameter tunnels in the world. The city also has a long history of innovation and is home to Microsoft, Amazon, and other tech industry giants.

Parker stressed that how we envision collecting and managing data to improve the overall functionality of the roadway system and enable the safe operation of automated vehicles is key to moving forward.



U.S. Department of Transportation (USDOT) ITS Joint Program Office Data Program Manager Ariel Gold

spoke about AV guiding principles, which include promoting proactive, data-driven safety, cybersecurity, and privacy-protection practices. Enabling voluntary data exchanges is important, along with coordinating across modes to reduce cost and industry burden and accelerate action. Gold said there are many types of data that AVs may need for safe integration

Data for Automated Vehicle Integration

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into the roadway. Increasing access to data is a part of the overall digital infrastructure puzzle, she added.

In small groups, participants discussed key themes, such as V2X communication, digital mapping, the level of needed detail, and the life-cycle management of data. Maintaining data was discussed along with exchanging data for mutual benefit, including the tapping of public and private data. Standardization along with its benefits was a key theme. Participants discussed whether there should be a minimum level of standardization, interoperability, and flexibility.



During the “Collaboration Corner” participants broke into groups to discuss several themes: infrastructure and operational data; digital infrastructure and connectivity; opportunities for National Digital Infrastructure Framework Development; and research needs.



FHWA Connected Automation Program Manager Carl Andersen kicked off Day Two by reminding participants that the goal of the workshop was to develop potential research topics and policy issues surrounding data and digital infrastructure that could be addressed. Themes from Day One included a consensus that the exchange of data between vehicles, and between vehicles and road infrastructure, could accelerate the safe integration of automated vehicles into our transportation system. This exchange of data will require collaborative cooperation among many stakeholders, both those that have historically played a role in surface transportation and new

stakeholders that might contribute, process, transmit, store or use the data. These activities may also necessitate the development of new systems and technologies. Participants were encouraged to think about the broad definition of digital infrastructure.



The group session on the second day discussed how to define digital infrastructure and what aspects of digital infrastructure are the most critical to enabling highway automation—data management hardware, software, policies, standards, agreements and communications technology. Participants also focused on the digital infrastructure

aspects needed to gather, process/quality check, assimilate and disseminate each data element. What would a national transportation digital infrastructure framework need to include in terms of type of data and data management capabilities were part of the discussion along with institutional capability, information, and guidance needs.



Panel on “Preparing for Automated Vehicles: Digital Infrastructure and Data Perspectives” included (from L-R) moderator **FHWA Office of Operations Research and Development Director Brian Cronin**, **Washington State Chief Privacy Officer Alex Alben**, and **INRIX Senior Director of Public Services Ted Trepanier**.

More information is available from the [National Dialogue on Highway Automation website](#) at
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(All photos source: Federal Highway Administration)