## ATCMTD: Advanced Transportation & Congestion Management Technologies Deployment

## **Background:**

In 2016, the City & County of Denver was among the top 7 applicants to the U.S. DOT Smart City Challenge. Although Denver was not selected, we were a leading applicant because of the cross-disciplinary nature of the team leading this work, the focus on leveraging data for solutions, and the expansive public-private partnerships in place to accelerate the work.



## **Current Efforts:**

Since the Challenge concluded, Denver has pressed forward with many transportation aspects of our proposal:

- Launching two living labs to provide a test environment for cutting-edge sensor technologies before making more significant investments.
  - At 61st and Pena with Panasonic, rapidly testing potential technologies.
  - Around downtown, allowing the City to experiment with real-time data for traffic flow and communication to improve safety and efficiency.
- Developing an Enterprise Data Management system designed to handle a wide range data from sensors to gain a better understanding of our City's overall traffic habits, utilizing best practices in data science.

## The Opportunity:

Denver's Smart City Challenge application was particularly competitive in how we proposed leveraging technology to reduce congestion. As a result, Denver was awarded the U.S. DOT Advanced Transportation and Congestion Management Technologies

Deployment Program (ATCMTD) grant. The ATCMTD funds cuttingedge transportation technologies to reduce congestion and to

improve the safety of our transportation system. This four year, \$12M effort is structured as a \$6M Federal grant with \$6M matching funds from Denver's Capital Improvement Program. With this effort, Denver will be one of the leading cities pushing forward connected vehicle and infrastructure technology, which will improve congestion, air quality, and safety for Denver's residents and businesses.

There are 3 projects we will pursue under this grant:

- Connected Freight: Right now, in our north Denver neighborhoods, delivery trucks and freight
  vehicles use local neighborhood roads in an effort to avoid construction and congestion on the way
  to their destinations. Using connected vehicle technology to allow trucks to communicate to our
  traffic signals and back, we can reduce the impact these trucks have in local communities, increase
  safety, improve delivery time reliability, and provide a cost savings to participating freight
  companies.
- Connected Fleet: The best way to test out connected vehicle technology is with our own fleet of city
  cars. By deploying this technology to city vehicles in a small geographic area, we can jump start
  market penetration, better understand how this new connected communication helps our
  resident's commuting experience, upgrade our traffic management system, and provide better data
  to citizens.
- Connected Citizens: A key component of smart city technology is the two-way communication between people and the City, whether they are in a car or walking across the street. Testing Automated Pedestrian Detection and Notification technology will allow the pedestrian "walk" sign to be extended if someone, such as a young child or a sight-impaired individual, needs a little more time to cross the street.