



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

April 28, 2021
AGENDA ITEM #16

Innovation and Technology
update

Strategic Plan Relevance:	Deliver Multi-Faceted Mobility Solutions; Employ a Collaborative Approach to Implementing Mobility Solutions; Invest in Efforts that Extend Beyond Roadways; Explore and Invest in Transformative Technology and Adopt Industry Best Practices; Deliver on Commitments to Our Customers and Our Investors
Department:	Administration
Contact:	Jeff Dailey, Deputy Executive Director Mia Zmud, Mobility Innovation Manager
Associated Costs:	N/A
Funding Source:	N/A
Action Requested:	Update and Board Discussion

Project Description/Background: The purpose of this briefing is to update the Board on the work of the Mobility Authority related to innovation, technology, and mobility solutions. Rapid advancements in technology are creating unprecedented opportunities to reimagine Mobility, creating revolutionary opportunities to make travel safer, faster, more reliable, and sustainable.

Previous Actions & Brief History of the Program/Project: The Mobility Authority launched in late 2018 an Innovation Program to incubate new ideas, study and test emerging technology, identify best practices, promote regional collaboration, and deploy transformative solutions through public and private sector partnerships.

The Innovation Program's goals directly align with the Mobility Authority's mission: to enhance quality of life and promote economic opportunity. All the initiatives undertaken as part of the Innovation Program are aimed at meeting one or more of the following goals: 1. Exceed Customer Expectations, 2. Maximize Regional Mobility, and 3. Turbocharge Agency Performance.

The 2021-22 Innovation Program intends to focus on the following target areas:

1. Connected Vehicle Communication Systems
2. Advanced Traffic Information and Management
3. Data and Analytics
4. Toll System Modernization
5. Customer Satisfaction and Behavioral Analysis

Listed below are some of the initiatives that are currently being implemented

1. Connected Vehicle Communication Systems
 - Deploy, test and evaluate connected vehicle communication systems to send real-time travel information (e.g., traffic information, alerts, and toll rates) directly to vehicles
2. Advanced Traffic Information and Management
 - Continue to deploy Lonestar Regional Traffic Management System with added functionality including integration of devices and connected vehicle data
 - Continue to deploy, test and evaluate video-based automated incident detection systems
 - Deploy, test and evaluate aggregation of connected vehicle data and use of artificial intelligence for crash prediction, detection, and customer notification (WayCare)
 - Deploy, test and evaluate wrong-way vehicle detection and notification technology
 - Deploy, test and evaluate smart work zones
3. Data and Analytics
 - Develop and deploy a cloud-based data platform that consolidates toll and traffic information
4. Toll System Modernization
 - Transition to an enhanced toll collection system
 - Pursue advanced payment systems and national interoperability of payment product(s)
 - Expand the use of habitual violator automatic license plate reader technology
 - Test and evaluate next generation in-vehicle toll systems
5. Customer Satisfaction and Behavioral Analysis Studies
 - Expand customer participation in and use of the CTX Navigators panel
 - Continue to measure and track customer satisfaction and agency

performance metrics through randomized customer experience surveys

- Monitor roadway usage trends and user demographics and travel behaviors via origin and destination and other studies.

Staff will present information on the state of emerging technologies and the work planned for 2021-2022.

Financing: N/A

Action requested/Staff Recommendation: Board Discussion

Backup Provided: Presentation